

Dr. Kingrad (Hg.)

Psychological and Physiological Correlates
of Stress: Performance on a Cooperative Task

(NAS 9-13452)

FINAL REPORT
June 2, 1976

Submitted to

NASA Lyndon B. Johnson Space Center
Facility and Laboratory Support Branch
Houston, Texas 77048

By

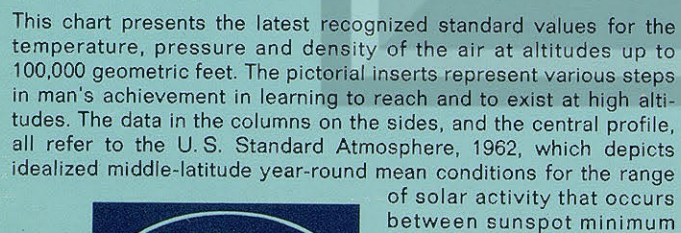
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Principal Investigator

and

Jerry Lester, Ph. D. and
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Psychophysiology Laboratory
Department of Psychiatry
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Houston, Texas 77030

U.S. Standard Atmosphere Properties



and sunspot maximum. The ICAO Standard Atmosphere is essentially consistent with the U.S. Standard Atmosphere up to 65,823 geometric feet. The hot and cold temperature profiles represent U.S. Military extreme maximum and minimum temperature criteria for the Northern Hemisphere. The tropical and polar temperature profiles represent U.S. Military standards for hydrodynamically consistent homogeneous atmospheres for the tropical and polar regions. The pressure and density values shown in the columns are consistent with the standard temperature profile only.

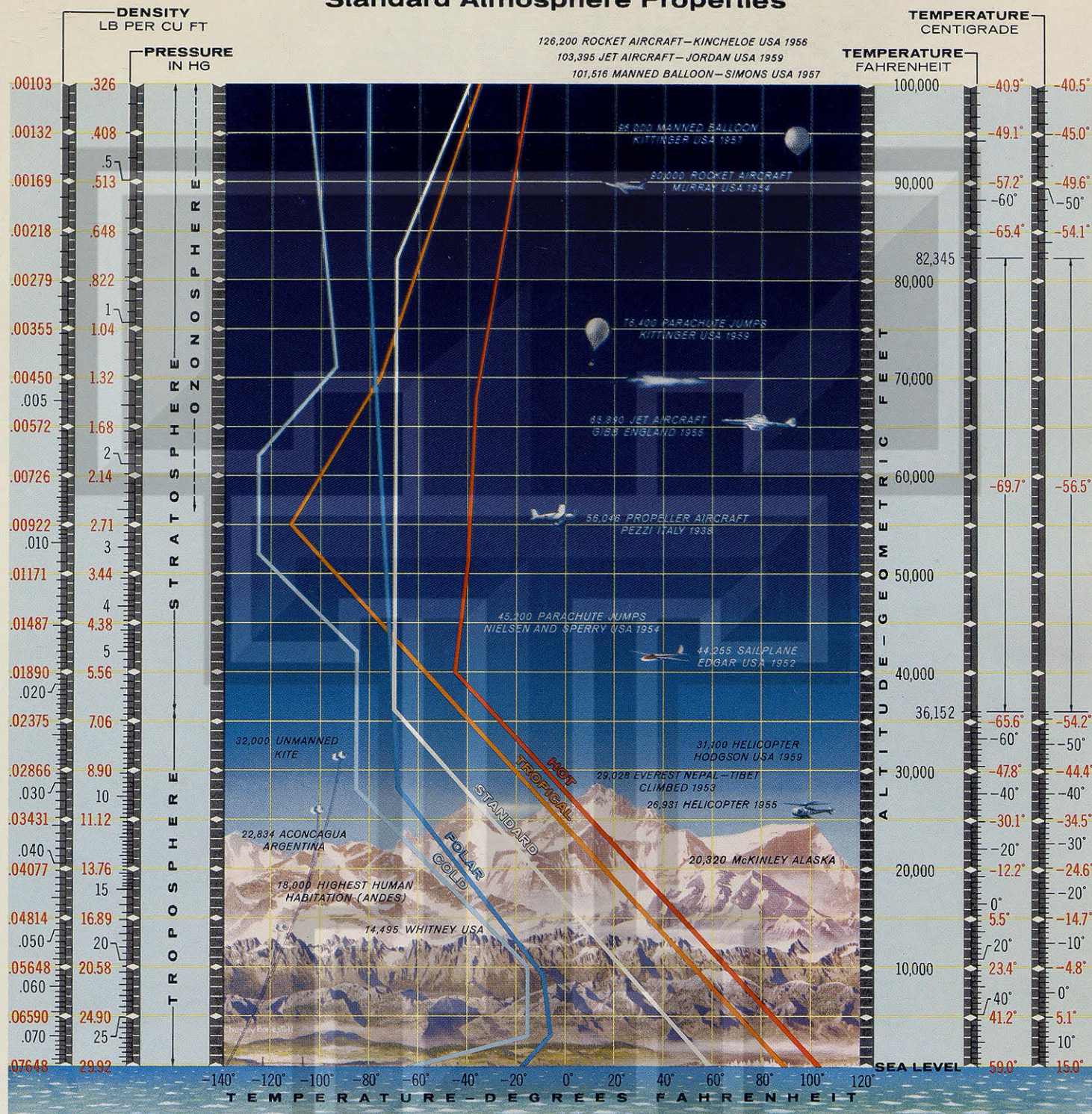


LOS ANGELES 9, CALIFORNIA • PHOENIX, ARIZONA

SYSTEMS AND COMPONENTS FOR: AIRCRAFT, MISSILE, SPACECRAFT, ELECTRONIC, NUCLEAR AND INDUSTRIAL APPLICATIONS

ATMOSPHERE CHART

Standard Atmosphere Properties



This chart presents the latest recognized standard values for the temperature, pressure and density of the air at altitudes up to 100,000 geometric feet. The pictorial inserts represent various steps in man's achievement in learning to reach and to exist at high altitudes. The data in the columns on the sides, and the central profile, all refer to the ARDC Model Atmosphere, 1959. The NACA Standard Atmosphere, 1955, and the ICAO Standard Atmosphere, 1954, are essentially consistent with the ARDC Model Atmosphere up to 66,008 geometric feet. The hot and cold

temperature profiles represent U.S. Military extreme maximum and minimum temperature criteria for the Northern Hemisphere. As defined in MIL-STD-210, it is assumed that the extremes will not be exceeded more than 10 per cent of the time. The tropical and polar temperature profiles represent U.S. Military standards for hydrodynamically consistent homogeneous atmospheres for the tropical and polar regions as defined in MIL-STD-210. The pressure and density values shown in the columns are consistent with the standard temperature profile only.

THE GARRETT CORPORATION
AiResearch Manufacturing Divisions

Los Angeles 45, California • Phoenix, Arizona

SYSTEMS AND COMPONENTS FOR AIRCRAFT • MISSILE • SPACECRAFT • ELECTRONICS • NUCLEAR AND INDUSTRIAL APPLICATIONS

NRTA AARP

PHARMACY PRODUCTS LIST

This listing supersedes any other publications with products and prices.

Service of The National Retired Teachers Association, American Association of Retired Persons & Action for Independent Maturity

THIS IS YOUR SPRING 1979 NRTA-AARP PHARMACY PRODUCTS LIST. PLEASE RETAIN FOR FUTURE USE AND REFERENCE.



Battle Creek THERMOPHORE Automatic Moist Heat Pack*



M530-3 Standard Size 13" x 27" for general family use, large enough to cover entire spine.
REG. PRICE \$49.95
NRTA-AARP PRICE 36.95

M530-5 Medium Size 13" x 13" equally useful for small body areas, hands, feet, etc.
REG. PRICE \$39.95
NRTA-AARP PRICE 30.95

Quick and effective MOIST HEAT FOMENTATIONS at the snap of a switch . . . and right in your home. Provide soothing relief from arthritic and rheumatic pain, muscular pain, congestion and discomfort of the common cold. THERMOPHORE actually traps moisture. It is this moisture that transmits the intense heat more efficiently. Hot fomentations have been used to relieve pain and discomfort for over a century. Today these moist heat treatments are used in hospitals, sanitariums, spas, and health resorts.

The THERMOPHORE produces moist heat automatically. There is no water to add, no water to boil, no dripping packs or towels to prepare. The THERMOPHORE is ready when you are. The entire treatment takes only twenty to thirty minutes, yet beneficial results continue for several hours after each treatment.

Each unit is equipped with a safety switch which shuts off automatically, should you fall asleep during a THERMOPHORE treatment. One year manufacturer's warranty.*

BLANKETS*

Automatic Electric Blanket

Enjoy perfect sleeping comfort, wonderful value with a fine automatic blanket. It assures you gentle, uniform warmth-without-weight, regardless of changes in room temperature. 100% Acrylic, convertible, snap-fitted corners, nylon bound top. Mothproof, machine washable. OUR FINEST AUTOMATIC BLANKET "FIELDCREST REGENCY" FULL FIVE YEAR WARRANTY (details on package).

Colors—Gold, Champagne White
Twin Size, 63" x 84" Single Control
M560-0 NRTA-AARP Price 29.75
Full Size, 72" x 84" Single Control
M561-0 NRTA-AARP Price 31.75
Full Queen Size, 84" x 90" with Dual Control
M562-0 NRTA-AARP Price 39.69



Our own Standard Automatic Blanket (not shown). FULL TWO YEAR WARRANTY (details on package). Soft blend of Polyester and Acrylic fibers. Machine washable.

Twin Size, 60" x 84" Single Control
M030-1 NRTA-AARP Price 23.49
Full Size, 72" x 84" Single Control
M032-2 NRTA-AARP Price 24.97
Colors—Gold, Light Blue

Thermal Blanket

Practical and pretty, this comfortable blanket is made of 100% acrylic fibers with 4 inch nylon binding. There is a hi-loft finish for thick nap and extra luxury. Most important, it is completely machine washable and dryable.

Guaranteed forever by manufacturer against moth damage. Almost anyone you know—and that includes yourself—will love this blanket that provides gentle warmth and luxurious comfort without weight. Fits twin or double bed size, 72" x 90".

\$13.00 suggested retail

Available in White, Blue and Gold

M036-1 NRTA-AARP Price 9.97

BLOOD PRESSURE* MONITOR/KIT

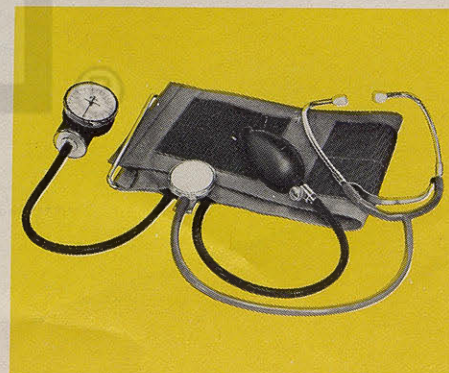
TO BE USED WHEN DOCTORS RECOMMEND SELF MONITORING OF BLOOD PRESSURE.

Kit contains "Touch N' Hold" velcro cuff with slide bar for easy handling. Accurate, easy to read aneroid manometer (gauge) calibrated to 300 MM. Complete instructions. Record booklet included in each kit for keeping track of day-to-day blood pressure readings. Dual action clip-on professional Bowles stethoscope.

*ONE YEAR WARRANTY

See Page 7

S005-1 NRTA/AARP Price 19.95



*See Page 7

NRTA-A

High Potency

This is NF formula. It contains tiny amounts of all minerals.

Formula

amounts of as a supplement. It is much less



COMP

Vitamin A
Vitamin D
Thiamin (B)
Riboflavin
Pyridoxine
Cyanocobalamin
Niacinamide
Ca. Pantoth.
Sod. Ascorb.
(Vit. C)
Vitamin E
Iodine . . .
Iron . . .
Copper . .
Manganese
Magnesium
Zinc . . .

PRODUCT NO.

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V101-3 For
V505-1 TH
V505-3 TH

Comp

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V062-1 M
V510-1 U

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NRTA-AARP VITAMIN FORMULAS

Compare The Labels

NRTA-AARP FORMULA No. 101

High Potency Vitamins with Minerals Added

This is NRTA-AARP's highest potency formula. It contains substantial quantities of all the essential vitamins, plus minerals.

Formula #101 is useful where large amounts of vitamins are indicated and as a supplement for people on restricted diets. This formula sells for much less than comparable brands.



COMPARE TO THERAGRAN-M

PRODUCT NO.	ITEM	QUANTITY	PRICE
V101-1	Formula No. 101	100	2.99
V101-3	Formula No. 101	300	8.09
V505-1	Theragran M	100	5.39
V505-3	Theragran M	180	9.49

Compare Formula No. 101 to;

PRODUCT NO.	ITEM	QUANTITY	PRICE
V039-1	Gevral T	100	7.19
V062-1	Mi-cebrin T tablets	100	7.29
V510-1	Unicap Therapeutic tablets	90	6.54

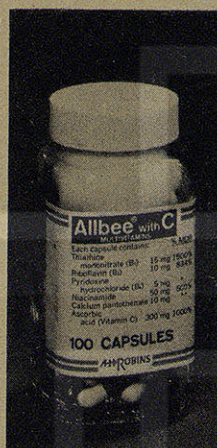
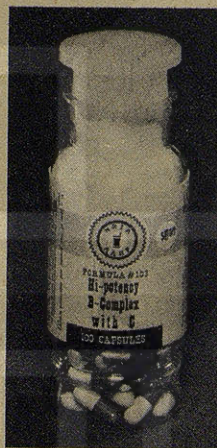
NRTA/AARP BRAND pharmaceuticals are of top quality, manufactured by nationally known pharmaceutical laboratories. To make comparisons easier, most NRTA/AARP formulas have been printed in full and are listed with the comparable national brand. All NRTA/AARP BRAND products are guaranteed to comply with all Federal and State regulations.

NRTA-AARP FORMULA No. 103

High Potency Vitamin B-Complex with Vitamin C

NRTA-AARP Formula #103 is an extra potency therapeutic B complex formula containing generous amounts of Vitamins B1, B2 and C.

Formula #103 is intended for people who are deficient in B and C Vitamins sometimes due to poor dietary habits.



COMPARE TO ALLBEE with C

PRODUCT NO.	ITEM	QUANTITY	PRICE
V103-1	Formula No. 103	100	3.29
V103-3	Formula No. 103	300	8.69
V003-1	Allbee with Vit. C	100	5.59

Compare Formula No. 103 to;

PRODUCT NO.	ITEM	QUANTITY	PRICE
V007-1	Becotin pulvules with Vitamin C	100	5.89
V010-1	Beminal Forte with Vitamin C	100	6.69
V017-1	Cebefortis tablets	100	9.57
V098-1	Surbex with Vit. C	100	6.29

NRTA-AARP FORMULA No. 104

NRTA-AARP Formula #104 is a super potency B complex formula with a generous amount of Vitamin C.

Formula #104 is used for correction of B complex and Vitamin C deficiency.

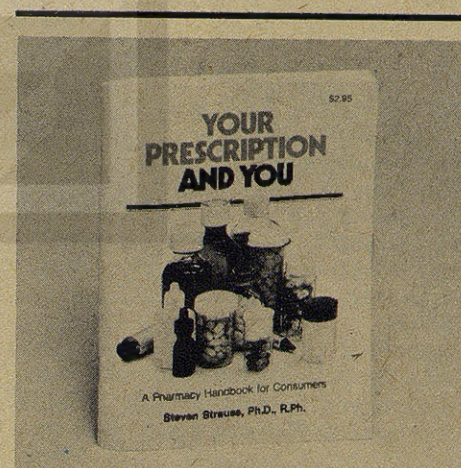
Formula #104 is Sugar Free

COMPARE TO SURBEX T

No. 104 SURBEX-T

PRODUCT NO.	ITEM	QUANTITY	PRICE
V104-1	Formula No. 104	100	4.25
V104-3	Formula No. 104	300	10.98
V097-1	Surbex-T	100	7.83

PRODUCT NO.	ITEM	QUANTITY	PRICE
V104-1	Formula No. 104	100	4.25
V104-3	Formula No. 104	300	10.98
V097-1	Surbex-T	100	7.83



You really should learn as much as you possibly can about the Prescriptions you're taking.

- Are there side effects?
- Should you drive or drink while taking the drug?
- Are there possible interactions with foods?
- What are the generic names?
- How to take?

These questions, and many more, are discussed in the brand new publication "YOUR PRESCRIPTION AND YOU —A Pharmacy Handbook for Consumers." This handy 108-page guide covers hundreds of prescription products and features other valuable patient information including a special section for diabetics and for persons taking anticoagulant drugs. "YOUR PRESCRIPTION AND YOU" is written in language you can easily understand.

"YOUR PRESCRIPTION AND YOU"
X112-1 NRTA-AARP PRICE \$2.50

These prices effective as of February 1, 1979. Prices subject to change without notice.

NRTA-AARP FORMULA No. 105

NRTA-AARP Formula #105 is our favorite Maturity Formula. We have spent a great deal of time in choosing the proper combination of vitamins and minerals to assure you that we have the balanced formula you would need to supplement the lack of vitamins and minerals for nutritional purposes. The most popular vitamin preparation with our members.



Vitamin A	10,000 Units
Vitamin D	400 Units
Vitamin B1 (Thiamin HCl.)	6 mg.
Vitamin B2 (Riboflavin)	5 mg.
Pyridoxine (Vitamin B6)	2 mg.
Vitamin B12 Activity	10 mcg.
Vitamin E	30 I.U.
Vitamin C (Ascorbic Acid)	80 mg.
Calcium Pantothenate	5 mg.
Inositol	30 mg.
dl-Methionine	30 mg.
Niacinamide	40 mg.
Ferrous Sulfate Dried (Iron)	102 mg.
Copper Sulfate	4 mg.
Manganese Sulfate	4 mg.
Calcium	41.2 mg.
Phosphorus	32 mg.
Iodine (as Potassium Iodide)	0.15 mg.
Magnesium (as Sulfate Dried)	3 mg.
Potassium (as Sulfate)	5 mg.
Zinc Sulfate	4 mg.
Choline (Bitartrate)	30 mg.

PRODUCT NO.	ITEM	QUANTITY	PRICE
V105-1	Formula No. 105	100	3.19
V105-3	Formula No. 105	300	8.49

NRTA-AARP FORMULA No. 107

Hematinic Formula #107 is a combination of Vitamin B Complex and desiccated liver in extra potencies, indicated in the treatment of uncomplicated anemias. We have added iron since this is a basic mineral needed for building hemoglobin.

EACH CAPSULE CONTAINS:

Vitamin B12	15 mcg.
Ferrous Sulfate	528 mg.
Vitamin C (Ascorbic Acid)	100 mg.
Vitamin B1 (Thiamin HCl.)	3 mg.
Vitamin B2 (Riboflavin)	3 mg.
Niacinamide	20 mg.
Vitamin B6 (Pyridoxine HCl.)	0.5 mg.
Calcium Pantothenate	3 mg.
Desiccated Liver	210 mg.

PRODUCT NO.	ITEM	QUANTITY	PRICE
V107-1	Formula No. 107	100	3.59

NRTA-AARP FORMULA No. 109

High Potency Vitamin

NRTA-AARP's FORMULA #109 is an extra potency therapeutic formula for those who are deficient in the basic vitamins. It contains generous amounts of these essential vitamins.



COMPARE TO THERAGRAN

	No. 109	THERAGRAN
Vitamin A	10,000 Units	10,000 Units
Vitamin D	400 Units	400 Units
Thiamine (B1)	10 mg.	10 mg.
Riboflavin (B2)	10 mg.	10 mg.
Pyridoxine HCl. (B6)	5 mg.	5 mg.
Cyanocobalamin (B12)	5 mcg.	5 mcg.
Niacinamide	100 mg.	100 mg.
Ca. Pantothenate	20 mg.	20 mg.
Sod. Ascorbate (Vit. C)	200 mg.	200 mg.
Vitamin E	15 I.U.	15 I.U.

PRODUCT NO.	ITEM	QUANTITY	PRICE
V109-1	Formula No. 109	100	2.89
V109-3	Formula No. 109	300	7.89
V504-1	Theragran	100	5.29

NRTA-AARP FORMULA No. 115

Daily Vitamin

This is NRTA-AARP's minimum one a day brand of vitamins. It is meant for those who feel well, but want to take some vitamins as a supplement.

COMPARE TO ONE-A-DAY



PRODUCT NO.	ITEM	QUANTITY	PRICE
V115-1	Formula No. 115	100	1.39
V115-3	Formula No. 115	300	3.79
V064-1	Miles One-a-day	100	2.96

Compare Formula No. 115 to;

PRODUCT NO.	ITEM	QUANTITY	PRICE
V511-1	Unicap capsules	90	2.68
V511-3	Unicap capsules	240	6.89

ALL NRTA-AARP FORMULAS APPEAR IN RED

NRTA-AARP FORMULA No. 113

Super Daily Vitamin Mineral

NRTA-AARP FORMULA #113, while not a therapeutic formula, is a super formula over the one a day type. It is desirable where there is faulty or limited diets and your daily maintenance requires special vitamins and minerals higher than minimum amounts.

EACH TABLET CONTAINS:

Vitamin A	10,000 U.S.P. Units
Vitamin D	400 U.S.P. Units
Vitamin B1 (Thiamin HCl.)	5 mg.
Riboflavin (B2)	5 mg.
Pyridoxine Hydrochloride (B6)	1.5 mg.
Vitamin B12	4 mcg.
Vitamin C (Ascorbic Acid)	75 mg.
Niacinamide	25 mg.
Calcium Pantothenate	5 mg.
Vitamin E	12 I.U.
Iodine	0.15 mg.
Potassium	5 mg.
Zinc (from Zinc Sulfate Dried CP)	1.5 mg.
Magnesium	6 mg.
Manganese	1 mg.
Iron	15 mg.
Copper	1 mg.

PRODUCT NO.	ITEM	QUANTITY	PRICE
V113-1	Formula No. 113	100	2.25
V113-3	Formula No. 113	300	5.95

Compare Formula No. 113 to;

PRODUCT NO.	ITEM	QUANTITY	PRICE
V063-1	Mi-Cebrin tablets	100	5.17
V068-1	Multicebrin tabs.	100	4.29

NRTA-AARP FORMULA No. 116

Daily Vitamin and Iron

This is a daily vitamin formula, the same as NRTA-AARP Formula No. 115 but, with 18 mg. iron added as fumarate.

PRODUCT NO.	ITEM	QUANTITY	PRICE
V116-1	Formula No. 116	100	1.59
V116-3	Formula No. 116	300	3.98
V065-1	Miles One-a-day with iron	100	3.43

NRTA-AARP FORMULA No. 111

Formula #111 is NRTA-AARP's answer to those who require greater amounts of Choline, Inositol and Methionine than is provided in our other formulations.

EACH 3 CAPSULES CONTAIN:

Choline Dihydrogen Citrate	0.83 gm.
dl-Methionine	0.33 gm.
Inositol	0.25 gm.
Vitamin B-12	9 mcg.
Desiccated Liver	0.26 gm.

KEEP IN A COOL, DRY PLACE

PRODUCT NO.	ITEM	QUANTITY	PRICE
V111-1	Formula No. 111	100	2.95

Compare Formula No. 111 to;

PRODUCT NO.	ITEM	QUANTITY	PRICE
V061-1	Methischol capsules	100	5.29

NRTA-A

MULTI-MI NO STAR

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Phosphor
Magnesium
Potassium
Manganese
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Zinc

PRODUCT NO.
V120-1

NRTA-A

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Magnesium
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PRODUCT NO.

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QUANTITY PRICE
0 5.29

NEW ITEM

NRTA-AARP FORMULA No. 120

MULTI-MINERAL Tablets. NO SUGAR, NO STARCH, NO COLOR ADDED.

This formula provides extra minerals as a supplement for a dietary deficiency.

3 TABS. SUPPLY			
Calcium	400 mg.		
Phosphorus	50 mg.		
Magnesium	200 mg.		
Potassium	30 mg.		
Manganese	25 mg.		
Iron	25 mg.		
Copper	5 mg.		
Iodine (Kelp)	225 mcg.		
Zinc	20 mg.		

PRODUCT NO.	ITEM	QUANTITY	PRICE
V120-1	Formula No. 120	100	1.98

NRTA-AARP FORMULA No. 123

Nutritional Vitamin Mineral Supplement

Formula #123 is a multiple vitamin improved with minerals. It is NRTA-AARP's comparable formula to brands that sell at much higher prices. Compare this formula and save.



COMPARE TO GEVRAL

No. 123		GEVRAL
Vitamin A	5,000 Units	5,000 Units
Vitamin B-1	1.5 mg.	1.5 mg.
Vitamin B-2	1.7 mg.	1.7 mg.
Vitamin B-6	2 mg.	2 mg.
Vitamin B-12	6 mcg.	6 mcg.
Vitamin C	60 mg.	60 mg.
Vitamin E	30 I.U.	30 I.U.
Folic Acid	0.4 mg.	0.4 mg.
Niacinamide	20 mg.	20 mg.
Calcium	162 mg.	162 mg.
Phosphorus	125 mg.	125 mg.
Iron	18 mg.	18 mg.
Magnesium	100 mg.	100 mg.
Iodine	0.15 mg.	0.15 mg.

PRODUCT NO.	ITEM	QUANTITY	PRICE
V123-1	Formula No. 123	100	3.19
V123-3	Formula No. 123	300	8.49
V038-1	Gevral tablets	100	5.94

Compare Formula No. 123 to;

V509-1	Unicap Senior	90	4.47
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HELP US SERVE YOU BETTER

Please PRINT your name and address clearly on all orders and correspondence. This will help us and speed up the delivery of your order.

NRTA-AARP FORMULA No. 125

Sugar Free Vitamin with Minerals

NRTA-AARP Formula #125 is a general all-round vitamin formula made especially for diabetics, and diet conscious people who must take a vitamin that is sugar free.

EACH CAPSULE CONTAINS:

Vitamin A	10,000 U.S.P. Units
Vitamin D	400 U.S.P. Units
Vitamin B1 (Thiamin HCl)	6 mg.
Vitamin B2 (Riboflavin)	5 mg.
Vitamin B6 (Pyridoxine)	0.5 mg.
Vitamin B12	10 mcg.
Vitamin E	5 I.U.
Vitamin C (Ascorbic Acid)	80 mg.
Calcium Pantothenate	5 mg.
Niacinamide	40 mg.
Ferrous Sulfate Dried	102 mg.
Copper Sulfate	4 mg.
Manganese Sulfate	4 mg.
Calcium	41.2 mg.
Phosphorus	32 mg.
Iodine (as Potassium Iodide)	0.15 mg.
Magnesium (as Sulfate Dried)	3 mg.
Potassium (as Sulfate)	5 mg.
Zinc Sulfate	4 mg.

PRODUCT NO.	ITEM	QUANTITY	PRICE
V125-1	Formula No. 125	100	3.49
V125-3	Formula No. 125	300	9.19

NRTA-AARP FORMULA No. 127

NRTA-AARP Formula #127 is a super potency Vitamin B complex, combined with iron, Vitamin C and B-12. We call this our energy Formula.

EACH TABLET CONTAINS:

Vitamin B1 (Thiamin HCl)	15 mg.
Vitamin B2 (Riboflavin)	6 mg.
Vitamin C (Ascorbic Acid)	30 mg.
Niacinamide 100% M.D.R.	10 mg.
Calcium Pantothenate	3 mg.
Vitamin B6 (Pyridoxine HCl)	0.5 mg.
Vitamin E	5 I.U.
Desiccated Liver	100 mg.
Brewer's Yeast	100 mg.
Choline Dihydrogen Citrate	20 mg.
Inositol	20 mg.
dl-Methionine	20 mg.
Vitamin B12	3 mcg.
Ferrous Gluconate	30 mg.
Cal. (di-Calcium Phosphate)	46 mg.
Phosphorus	36 mg.
Iodine (Potassium Iodide)	0.15 mg.
Magnesium Sulfate Dried	7.2 mg.
Copper Sulfate	5 mg.
Manganese Sulfate	3.4 mg.
Potassium Chloride	1.3 mg.

PRODUCT NO.	ITEM	QUANTITY	PRICE
V127-1	Formula No. 127	100	2.69
V127-3	Formula No. 127	300	7.39

MONEY BACK GUARANTEE

You may return any unopened product for refund or credit within 30 days of receipt. Please include a copy of the invoice to facilitate proper handling.

NRTA-AARP FORMULA No. 129

High Potency Iron Vitamin Tonic

Formula #129 is NRTA-AARP's tonic tablet. It contains B Complex, Vitamin C, and blood building iron.

Formula #129 is desirable as a supplemental aid in cases of poor appetite and convalescence after illness.



COMPARE TO GERITOL

No. 129		GERITOL
Iron	50 mg.	50 mg.
Vitamin B-1	5 mg.	5 mg.
Vitamin B-2	5 mg.	5 mg.
Vitamin C	75 mg.	75 mg.
Niacinamide	30 mg.	30 mg.
Cal. Pantothenate	2 mg.	2 mg.
Vitamin B-6	0.5 mg.	0.5 mg.
Vitamin B-12	3 mcg.	3 mcg.

PRODUCT NO.	ITEM	QUANTITY	PRICE
V129-1	Formula No. 129	100	2.29
V129-3	Formula No. 129	300	5.19
V037-1	Geritol tablets	100	5.57
V037-3	Geritol tablets	180	8.69

NRTA-AARP FORMULA No. 133

Stress Formula Capsules

Formula #133 is indicated where a deficiency of these vitamins is caused by stress. These vitamins help maintain good health.



COMPARE TO STRESSCAPS

No. 133		Stresscaps
Vitamin C	300 mg.	300 mg.
Vitamin B-1 Thiamin	10 mg.	10 mg.
Riboflavin B-2	10 mg.	10 mg.
Niacinamide	100 mg.	100 mg.
Pyridoxine HCl. B-6	2 mg.	2 mg.
Calcium		
Pantothenate	20 mg.	20 mg.
Vitamin B-12	6 mcg.	6 mcg.

PRODUCT NO.	ITEM	QUANTITY	PRICE
V133-1	Formula No. 133	100	3.59
V091-1	Stresscaps		
	Lederle	100	6.98

NRTA-AARP FORMULA No. 131

Multi-Vitamin with Minerals

NRTA-AARP Formula #131 is a daily maintenance formula containing both vitamins and minerals. This is what quite a few people would say "is a good all-around formula" for persons with no special deficiencies who want to take vitamins.



COMPARE TO UNICAP M

	No. 131	UNICAP-M
Vitamin A	5,000 Units	5,000 Units
Vitamin D	400 Units	400 Units
Vitamin C	50 mg.	50 mg.
Vitamin B-1	2.5 mg.	2.5 mg.
Vitamin B-2	2.5 mg.	2.5 mg.
Vitamin B-6	0.5 mg.	0.5 mg.
Vitamin B-12	2 mcg.	2 mcg.
Cal. Pantothenate	5 mg.	5 mg.
Niacinamide	20 mg.	20 mg.
Vitamin E	10 I.U.	10 I.U.
Iron	10 mg.	10 mg.
Copper	1 mg.	1 mg.
Iodine	0.15 mg.	0.15 mg.
Calcium	35 mg.	35 mg.
Magnesium	6 mg.	6 mg.
Manganese	1 mg.	1 mg.
Potassium	5 mg.	5 mg.

PRODUCT NO.	ITEM	QUANTITY	PRICE
V131-1	Formula No. 131	100	2.25
V131-3	Formula No. 131	300	5.19
V508-1	Unicap M	90	3.97
V508-3	Unicap M	180	7.24

Compare Formula No. 131 to:

PRODUCT NO.	ITEM	QUANTITY	PRICE
V092-1	Stuart Formula	100	3.61

NRTA-AARP FORMULA No. 145

COMPARE TO LIPOTRIAD

EACH 3 CAPSULES CONTAIN:

	LIPOTRIAD
Choline bitartrate	700 mg.
Inositol	334 mg.
Cobalamin Conc.	5 mcg.
Thiamine HCl	1 mg.
Riboflavin	1 mg.
Niacinamide	10 mg.
Pyridoxine HCl	1 mg.
Cal. Pantothenate	1 mg.

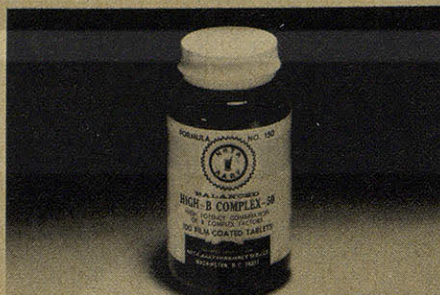
PRODUCT NO.	ITEM	QUANTITY	PRICE
V145-1	Formula No. 145	100	3.49
V145-3	Formula No. 145	300	8.98
V058-1	Lipotriad Caps	100	4.39

NEW ITEM

NRTA-AARP FORMULA No. 150

HIGH B COMPLEX-50

Super potency combination of B Complex factors in one tablet. SUGAR FREE. Starch Free, no added color.



Vitamin B-1 (Thiamine HCl)	50 mg.
Vitamin B-2 (Riboflavin)	50 mg.
Vitamin B-6 (Pyridoxine HCl)	50 mg.
Vitamin B-12	50 mcg.
Niacinamide	50 mg.
Folic Acid	100 mcg.
Pantothenic Acid	50 mg.
d-Biotin	50 mcg.
Choline Bitartrate	50 mg.
Inositol	50 mg.
PABA	50 mg.

IN AN ALL NATURAL BASE

PRODUCT NO.	ITEM	QUANTITY	PRICE
V150-1	Formula No. 150	100	4.19
V150-3	Formula No. 150	300	10.59

NEW ITEM

NRTA-AARP FORMULA No. 160

HIGH POTENCY—HIGH B

COMPLEX 100

High potency combination of B Complex factors in one tablet. SUGAR FREE. Starch Free, no added color.

One Protein Coated

Tablet Supplies:

Vitamin B-1 (Thiamine)	100 mg.
Vitamin B-2 (Riboflavin)	100 mg.
Vitamin B-6 (Pyridoxine)	100 mg.
Vitamin B-12 (Cobalamin Concentrate)	100 mcg.
Niacinamide	100 mg.
Folic Acid	200 mcg.
Pantothenic Acid	100 mg.
Biotin	100 mcg.
Choline (Bitartrate)	100 mg.
Inositol	100 mg.
Para Aminobenzoic Acid (PABA)	100 mg.

IN AN ALL NATURAL BASE

V160-1	Formula No. 160	100	6.98
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ALL NRTA-AARP FORMULAS APPEAR IN RED

NEW ITEM

NRTA-AARP FORMULA No. 152

Therapeutic Hi-potency Vitamin and Mineral formula. **Sugar Free, Starch Free, No Added Color.** Dietary supplement for that special need.

Each tablet contains:

Vitamin A	10,000 Units
Vitamin D	400 Units
Thiamin (B-1)	10 mg.
Riboflavin (B-2)	10 mg.
Pyridoxine HCl	5 mg.
Cyanocobalamin	5 mcg.
Niacinamide	100 mg.
Ca. Pantothenate	20 mg.
Ascorbic Acid	200 mg.
Vitamin E	15 I.U.
Iodine	0.15 mg.
Iron	12 mg.
Copper	2 mg.
Manganese	1 mg.
Magnesium	40 mg.
Zinc	1.5 mg.

PRODUCT NO.	ITEM	QUANTITY	PRICE
V152-1	Formula No. 152	100	3.49

NEW ITEM

NRTA-AARP FORMULA No. 195

Multi Vitamin, Multi Mineral 100% Recommended Daily Allowance of 11 essential Vitamins plus 100% RDA of Iron, Copper, Iodine and Zinc with added Minerals. SUGAR FREE, STARCH FREE, NO ADDED COLOR.



Each Protein Coated tablet contains:

Vitamin A	5,000 I.U.
Vitamin E	30 I.U.
Vitamin C	60 mg.
Folic Acid	0.4 mg.
Thiamine	1.5 mg.
Riboflavin	1.7 mg.
Niacinamide	20 mg.
Vitamin B-6	2 mg.
Vitamin B-12	6 mcg.
Vitamin D	400 I.U.
Pantothenic Acid	10 mg.
Iron	18 mg.
Calcium	100 mg.
Phosphorus	100 mg.
Iodine	150 mcg.
Magnesium	100 mg.
Copper	2 mg.
Zinc	15 mg.

PRODUCT NO.	ITEM	QUANTITY	PRICE
V195-1	Formula No. 195	100	2.98

No. 152
amin and
e, Starch
y suppl-

000 Units
400 Units
...10 mg.
...10 mg.
...5 mg.
...5 mcg.
...100 mg.
...20 mg.
...200 mg.
...15 I.U.
...0.15 mg.
...12 mg.
...2 mg.
...1 mg.
...40 mg.
...1.5 mg.
QUANTITY PRICE
00 3.49

No. 195
ral 100%
nce of 11
0% RDA
and Zinc
AR FREE,
D COLOR.

contains:
5,000 I.U.
...30 I.U.
...60 mg.
...0.4 mg.
...1.5 mg.
...1.7 mg.
...20 mg.
...2 mg.
...6 mcg.
...400 I.U.
...10 mg.
...18 mg.
...100 mg.
...100 mg.
...150 mcg.
...100 mg.
...2 mg.
...15 mg.
QUANTITY PRICE
00 2.98

NEW ITEM

NRTA-AARP FORMULA No. 199 MEGAVITAMINS

NRTA-AARP's answer to your request for daily MEGAVITAMINS. Dosage: One at breakfast and one at dinner provides 24 essential high potency vitamins and minerals. Soft gelatin easy to swallow capsules, dissolves sooner and absorbed quicker, **starch** and **sugar free**. Sealed-in potency and freshness.

TWO CAPSULES CONTAIN:

Vitamin A	10,000 I.U.
Vitamin D	400 I.U.
Vitamin C	300 mg.
Vitamin E	300 I.U.
Vitamin B-1	50 mg.
Vitamin B-2	50 mg.
Vitamin B-6	50 mg.
Vitamin B-12	50 mcg.
Pantothenic Acid	50 mg.
Para-Aminobenzoic Acid	50 mg.
Niacinamide	50 mg.
Folic Acid	400 mcg.
Biotin	50 mcg.
Choline (Bitartrate)	50 mg.
Inositol	50 mg.
Lecithin	80 mg.
Soybean Oil	442 mg.
Calcium	200 mg.
Phosphorus (Bone Meal)	50 mg.
Iron (Ferrous Fumarate)	18 mg.
Copper (Gluconate)	2 mg.
Iodine (Kelp)	150 mcg.
Magnesium	50 mg.
Zinc (Citrate)	15 mg.
Manganese (Carbonate)	30 mg.
Potassium (Citrate)	30 mg.

V199-1 Formula No. 199 ...60 4.97

*SPECIFIC PRODUCT WARRANTIES

Some items are covered by "specific warranties" that explain what the manufacturer will do in the event that repair or service is needed. These specific warranties are available free upon request. In addition, a copy of the written warranty is enclosed with the merchandise.

NATIONAL BRAND VITAMINS

PRODUCT NO.	ITEM	QUANTITY	PRICE
V004-1	Allbee-T	100	7.79
V008-1	Becotin T	100	6.69
V009-1	Beminal 500	100	7.79
V026-1	Femiron	120	2.89
V029-1	Fergon tabs 5 gr.	100	1.87
V031-3	Ferro-Sequels	100	7.95
V035-1	Geriplex	100	5.78
V036-1	Geriplex FS	100	7.68
V045-1	Hesper capsules	100	12.09
V047-1	Iberet 500	60	9.76
V053-1	Lederplex caps	100	3.99
V057-1	Lipoflavonoid caps	100	11.47
V057-3	Lipoflavonoid caps	500	44.27
V060-1	Lufa caps	100	6.19
V066-1	Mol Iron tabs	100	1.59
V069-1	Myadec	100	4.99
V076-1	Optilets M-500	100	7.78

COMPARE AND SAVE

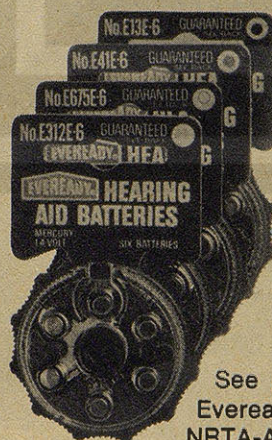


PRODUCT NO.	ITEM	QUANTITY	PRICE
V078-1	Oscal	100	2.65
V078-3	Oscal	500	12.29
V310-1	Formula No. 310 Oyster Calcium with Vit. D	200	2.65

V081-1	Peritinic	60	7.49
	Squibb B		
V087-1	Complex tab	100	4.19

COMPARE AND SAVE

PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 307 Gelatin Capsules	100	2.29
F307-1	Each Capsule contains: Gelatin 500 mg., Calcium 58 mg., Phosphorus 45 mg., Vitamin D 50 U.S.P. units.		



See page 28 for Eveready lists and NRTA-AARP prices.

COMPARE AND SAVE



PRODUCT NO.	ITEM	QUANTITY	PRICE
V090-1	Stress Tabs 600	60	4.79
V360-1	Formula No. 360 Stress Formula Tablets with Vit. C 600 mg.	100	3.99

V089-1	Stress Tabs 600 with Iron	60	5.23
V362-1	Formula 362 Stress Formula Tablets with Vit. C 600 mg. with Iron 100	4.79	

V093-1	Stress Tabs 600 with Zinc	60	5.69
	Formula No. 364 Stress Formula Tablets with Vitamin C 600 mg. with Zinc	100	4.99

V094-1	Stuartinic	60	4.40
	Thera-Combex		
V501-1	H.P.	100	7.99
V507-1	Trophite tabs	50	4.07
V515-1	Vitron-C	100	3.69

NEW ITEM

COMPARE AND SAVE

Formula No. 210			
Ascorbic Acid	300 mg.		
Niacinamide	100 mg.		
Zinc Sulfate	80 mg.		
Thiamin (B-1)	20 mg.		
Ca. Pantothenate	20 mg.		
Riboflavin (B-2)	10 mg.		
Pyridoxine (B-6)	5 mg.		
Magnesium Sulfate	70 mg.		
V210-1	Formula No. 210	100	4.25
V095-1	Vicon-C Caps	60	5.25

V518-1	White's Cod Liver Oil Caps	100	4.26
V016-1	Z-BEC Vitamin Caps	60	4.99

LOOK IN THE INDEX

A complete alphabetical list of all items in this Price List can be found in the INDEX on pages 25 and 26.

NATURAL VITAMINS AND DIETARY SUPPLEMENTS

NATURAL VITAMINS

NATURAL VITAMIN A

10,000 U.S.P. Units

From Blended Fish Oils

PRODUCT NO.	ITEM	QUANTITY	PRICE
V151-1	Formula No. 151	100	1.49
V151-3	Formula No. 151	300	3.79



NATURAL B COMPLEX WITH VITAMIN C

EACH CAPSULE CONTAINS:

Thiamine	7 mg.
Riboflavin	14 mg.
Niacin	4.67 mg.
Vitamin B-12	
(Cobalamin conc.)	25 mcg.
Vitamin C	100 mg.

Plus the Vitamin B-Complex factors normally present in 210 mg. of Yeast concentrate and Rice bran.

PRODUCT NO.	QUANTITY	PRICE
V071-1	100	3.25
V071-3	300	8.78

NATURAL ROSE HIPS WITH VITAMIN C

Rose Hips Concentrate standardized to provide Vitamin C with other natural Rose Hips factors. Chewable.

PRODUCT NO.	QUANTITY	PRICE
V073-1	300 mg.	2.49
V073-3	300 mg.	6.49
V085-1	500 mg.	3.39
V085-3	500 mg.	7.99

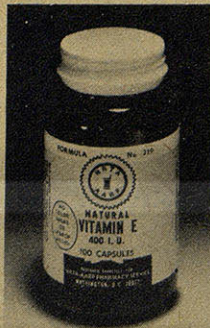
NATURAL BREWER'S YEAST

PRODUCT NO.	ITEM	QUANTITY	PRICE
V191-1	Formula No. 191 NRTA-AARP Brewer's Yeast Tablets	1000	4.89
	0.5 GM	7 1/2 gr.	

NATURAL COD LIVER OIL

EACH 10 Minim CAPSULE CONTAINS:
Vitamin A 1,250 USP Units
Vitamin D 135 USP Units

PRODUCT NO.	QUANTITY	PRICE
V074-1	100	1.59



NATURAL VITAMIN E Capsules

d-Alpha Tocopheryl Acetate
From natural vegetable oils

PRODUCT NO.	ITEM	QUANTITY	PRICE
	100 I.U. in each capsule		
V315-1	Formula No. 315	100	1.98
V315-3	Formula No. 315	300	5.49
	200 I.U. in each capsule		
V317-1	Formula No. 317	100	3.29
V317-3	Formula No. 317	300	8.98
	400 I.U. in each capsule		
V319-1	Formula No. 319	100	4.99
V319-3	Formula No. 319	300	14.59
	1000 I.U. in each capsule		
V321-1	Formula No. 321	100	12.52

NATURAL VITAMIN E CAPSULES

(Mixed Tocopherols)

Each capsule contains Vitamin E derived from Mixed Tocopherols (alpha, beta, gamma and delta).

PRODUCT NO.	ITEM	QUANTITY	PRICE
V042-1	100 I.U.	100	1.97
V042-3	100 I.U.	300	5.39
V043-1	200 I.U.	100	3.15
V043-3	200 I.U.	300	8.89
V044-1	400 I.U.	100	4.97
V044-3	400 I.U.	300	14.49
V041-1	1000 I.U.	100	12.68

NATURAL DIETARY SUPPLEMENTS

NATURAL BONE MEAL

10 Grain—Tablets

Natural source of Calcium and Phosphorus.

PRODUCT NO.	QUANTITY	PRICE
V011-1	500	3.49

NATURAL DOLOMITE TABLETS

Source of Calcium and Magnesium.

PRODUCT NO.	QUANTITY	PRICE
V154-1	500 ... 9 grain tablet	3.19

ALL NRTA-AARP FORMULAS APPEAR IN RED

GARLIC (Odorless)

Contains 5 minims concentrated extract of Garlic Oil in natural vegetable oils.

PRODUCT NO.	QUANTITY	PRICE
V034-1	250 Capsules	2.99

KELP AND ALFALFA TABLETS

Source of Iodine

PRODUCT NO.	QUANTITY	PRICE
V050-3	500	3.29



LECITHIN CAPSULES

Each Capsule contains Soy Lecithin 1200 mgm. 19 Grains.

PRODUCT NO.	QUANTITY	PRICE
V096-1	100	2.69
V096-3	250	5.29

DESICCATED LIVER TABLETS

7 1/2 Grain

A natural source of members of the Vitamin B-Complex and is not intended for use in the treatment of pernicious anemia.

PRODUCT NO.	QUANTITY	PRICE
V022-1	300	3.49

California Residents Please Note

Order your needs from the California Retired Persons Pharmacy, 201 Long Beach Blvd., Long Beach 90848. Your prescription must be the original, signed by a doctor licensed in the State of California.

Prescriptions on file in one of our other Pharmacies cannot be filled in California. Continue to order such prescriptions from the Pharmacy where your prescriptions are on file.

Natural V



PR

An all natu
ment in co

PRODUCT NO. Q
V082-1 50

NATURA

A palatable
tural sour
mixed with
liquid. Van

PRODUCT NO. Q
V512-1 1



HI PO VITAMIN

EACH

Vit. A (Fish
Vit. D (Fish
Vit. B-1 (Ye
Vit. B-2 (Ye
Vit. B-6 (Ye
Vit. B-12 (C
Niacin (Yea
Folic Acid
Pantothenic
Vit. E (D-Al
Succinat
Vit. C (Rose
Vit. C) . . .
Calcium (E
Phosphorus
Iron (Ferro
Iodine (Kel

PRODUCT NO. Q
V046-1 18
V046-3 36

Natural Vitamins (Continued)



PROTEIN TABLETS

An all natural high protein food supplement in convenient tablet form.

PRODUCT NO.	QUANTITY	PRICE
V082-1	500	4.99

NATURAL PROTEIN POWDER

A palatable protein powder from natural sources which can be easily mixed with milk or any hot or cold liquid. Vanilla.

PRODUCT NO.	QUANTITY	PRICE
V512-1	1 lb.	4.25



HIGH POTENCY NATURAL VITAMIN/MINERAL TABLETS

EACH TABLET CONTAINS:

Vit. A (Fish Liver Oil) . . .10,000 USP Un.
 Vit. D (Fish Liver Oil) . . .400 USP Un.
 Vit. B-1 (Yeast)10 mg.
 Vit. B-2 (Yeast)5 mg.
 Vit. B-6 (Yeast)1 mg.
 Vit. B-12 (Cobalamin Conc.) 15 mcgm.
 Niacin (Yeast)10 mg.
 Folic Acid (Yeast)82 mcg.
 Pantothenic Acid (Yeast) . . .327 mcg.
 Vit. E (D-Alpha Tocopheryl Acid Succinate)50 I.U.
 Vit. C (Rose Hips Conc. With Vit. C)50 mg.
 Calcium (Bonemeal)65 mg.
 Phosphorus (Bonemeal) . . .31.67 mg.
 Iron (Ferrous Fumarate) . . .10 mg.
 Iodine (Kelp)16.7 mcg.

PRODUCT NO.	QUANTITY	PRICE
V046-1	180	5.98
V046-3	360	9.95

MISCELLANEOUS VITAMINS AND MINERALS

VITAMIN A

PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 151			
V151-1	10,000 Units	100	1.49
V151-3	10,000 Units	300	3.79

VITAMIN B-1 (Thiamin Chloride)

PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 155			
V155-3	25 mg	300	2.59
Formula No. 157			
V157-3	50 mg	300	2.89
Formula No. 159			
V159-1	100 mg	100	1.99
V159-3	100 mg	300	4.86

VITAMIN B-12

PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 161			
V161-1	25 mcgm	100	1.16
V161-3	25 mcgm	300	3.12
Formula No. 163			
V163-1	50 mcgm	100	1.95
V163-3	50 mcgm	300	5.29
Formula No. 164			
V164-1	100 mcgm	100	2.39

VITAMIN C (Ascorbic Acid)

PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 167			
V167-1	100 mg	300	2.55
V167-3	100 mg	1000	7.66
Formula No. 169			
V169-1	250 mg	100	1.59
V169-3	250 mg	300	3.89
V169-5	250 mg	1000	9.69
Formula No. 171			
V171-1	500 mg	100	1.89
V171-3	500 mg	300	4.89
V171-5	500 mg	1000	14.99
Formula No. 174			
V174-1	1000 mg	100	2.98

VITAMIN C, CHEWABLE

Fruit Flavored

PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 303			
V303-1	250 mg	100	2.19
V303-3	250 mg	300	5.39

COMPARE AND SAVE FERROUS SULFATE

PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 173			
V173-3	5 gr.	300	2.29
V027-1	Feosol Tabs.	100	1.93
Formula No. 373			
V373-1	T.D. Caps	100	2.79
V028-1	Feosol Spansules	30	2.16

COMPARE AND SAVE



VITAMIN C TIMED RELEASE 500 mg. Pellets are prepared to release the Vitamin C over a period of approximately 8 to 10 hours.

CAPSULES

PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 172			
V172-1	No. 172	100	3.49

COMPARE AND SAVE

COD LIVER OIL TABLETS (A and D Concentrate Tablets)

PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 193			
V193-3	Vit. A-4000, Vit. D-400	300	2.89
White's Cod Liver Oil			
V517-1	tabs	100	1.59

COMPARE AND SAVE

CALCIUM AND PHOSPHORUS WITH VIOSTEROL CAPSULES

PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 175			
V175-1	No. 175	100	1.61
Formula No. 175			
V175-3	No. 175	300	3.99
Formula No. 175			
V175-5	No. 175	1000	10.95
V013-1	Calcicaps	100	1.49
V013-3	Calcicaps	500	5.79
V023-1	DiCal D Caps, Abbotts	100	2.86
V024-3	Calcium, Phosphate and Vit D Squibbs	360	6.39

CALCIUM GLUCONATE

PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 143			
V143-3	7½ gr.	300	2.98
V015-1	Calcium Gluconate (Lilly) 15½ gr.	100	5.49

CALCIUM LACTATE TABLETS

PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 255			
V255-1	5 gr.	300	2.34
Formula No. 257			
V257-1	10 gr.	300	2.98

Miscellaneous Vitamins (Contd.)

NIACINAMIDE (Nicotinamide)

PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 185		
V185-1	50 mg.	300	2.19
	Formula No. 187		
V187-1	100 mg.	300	2.69

NIACIN (Nicotinic Acid)

PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 181		
V181-1	50 mg.	300	1.89
V181-3	50 mg.	1000	4.89
	Formula No. 183		
V183-3	100 mg.	300	2.49
V183-5	100 mg.	1000	6.69

V067-1	Pantothenic Acid (B Complex Factor)	100 mg. Tab ..	100	1.89
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V055-1	POTASSIUM TABLETS With Vitamin C	Chewable	100	1.99
Each 2 Tabs—78 mg Potassium				

PYRIDOXINE (Vitamin B-6)

PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 273		
V273-1	10 mg.	100	1.29
	Formula No. 275		
V275-1	25 mg.	100	1.59
	Formula No. 277		
V277-1	50 mg.	100	1.89
	Formula No. 278		
V278-1	100 mg.	100	2.49

RIBOFLAVIN (Vitamin B-2)

PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 279		
V279-1	5 mg.	100	1.29
	Formula No. 281		
V281-1	10 mg.	100	1.69
	Formula No. 282		
V282-1	25 mg.	100	1.99

WHEAT GERM OIL CAPSULES

PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 190		
V190-1	20 minims	100	3.98
V190-3	20 minims	300	10.69
V519-1	Zinc Tab 15 mg.	100	1.49
V002-1	Capsules of Kelp 25 mg, Lecithin 100 mg, B-6 3.5 mg, Cider Vinegar 40 mg ...	100	2.98

Econo-E

VITAMIN E CAPSULES

DL Alpha Tocopheryl Acetate

V417-1	200 I.U.	100	1.99
V417-3	200 I.U.	300	4.99
V419-1	400 I.U.	100	2.98
V419-3	400 I.U.	300	7.98
V421-1	1000 I.U.	100	6.69

LAXATIVES

COMPARE AND SAVE

PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 229		
L229-1	Laxative	100	.69
L001-1	Alophen pills ..	100	.89

	Formula No. 231		
	Bile Salts and Diastase		
L231-1	Comp.	100	1.66
	Caroid Laxative		
L005-1	tablets	100	2.16

L006-1	Carter's little pills ..	85	1.83
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	Formula No. 261		
	Cascara Sagrada,		
L261-1	5 gr.	100	1.69

L010-1	Colace caps,	50 mg.	60	4.66
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COMPARE AND SAVE



PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 249		
	Diocetyl Sodium Sulfosuccinate		
L249-1	Stool Softener,		
	100 mg.	100	2.98
L249-3		300	6.96
	Colace capsules,		
L009-3	100 mg	60	5.69

COMPARE AND SAVE

PRODUCT NO.	ITEM	QUANTITY	PRICE
	NEW ITEM		
	Formula No. 260		
	Diocetyl Sodium Sulfosuccinate		
L260-1	250 mg	100	4.39

Laxatives (Continued)

PRODUCT NO.	ITEM	QUANTITY	PRICE
L011-1	Correctol	60	2.59
L012-1	Decholin Tab	100	8.29
L013-1	Dialose	100	5.69

COMPARE AND SAVE

PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 328		
	E.C. Laxative tabs		
L328-1	Bisacodyl 5 mg	100	2.49
L021-1	Dulcolax tabs ..	100	5.89

COMPARE AND SAVE



PRODUCT NO.	ITEM	QUANTITY	PRICE
	NEW ITEM		
	Formula No. 234		
	Stool Softener with		
L234-1	Gentle Laxative	100	3.97
L014-1	Dialose Plus ..	100	7.59

L018-1	Doxidan	100	6.95
L022-1	Evacugen	100	1.89
L023-1	Exlax tabs.	48	2.16
L024-3	Feenamint Gum ...	84	2.99
L027-1	Konsyl	12 oz.	3.34
L028-1	LA Formula ...	14 oz.	3.03

COMPARE AND SAVE

NATURAL VEGETABLE LAXATIVE



PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 235		
	Psyllium Mucilloid and		
L235-1	Dextrose ..	14 oz.	2.69
L033-1	Metamucil ..	14 oz.	3.99
L033-3	Metamucil ..	21 oz.	5.49

L034-1	Metamucil instant mix (30 packets)		3.47
L035-1	Modane	100	8.97
L036-1	Modane Mild ...	100	6.49
	Mucilose flakes,		
L037-1	concentrate	16 oz.	7.87
L038-1	Mucilose grans	14 oz.	6.49
L039-1	Nature's Remedy	100	1.79

Laxatives (Continued)



PRODUCT NO.

L250-1
L250-3
L045-3 P

L048-1 Re
L051-1 Se
L051-3 Se



L267-1
L052-1

L054-1 Se
L055-1 Se
L053-1 Se
L056-1 S
L057-1 S
L059-1 Sw
L064-1 Ve

NRTA

NATURA
An aid in
fat and pr
Each table
Pancreatin
Oxbile ..
Papain ..
Duodenal
PRODUCT NO.
A246-1 ..

Laxatives (Continued)

COMPARE AND SAVE



PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 250		
	Stool Softener		
L250-1	plus Laxative	100	3.49
L250-3		300	7.98
L045-3	Peri Colace	60	6.29

L048-1	Regulol	90	4.17
L051-1	Senokot gran.	8 oz.	5.19
L051-3	Senokot gran.	16 oz.	8.09

COMPARE AND SAVE



	Formula No. 267		
	Senna Concentrate		
L267-1	Tablets	200	3.49
	Senokot		
L052-1	Tablets	100	4.98

L054-1	Serutan gran.	18 oz.	3.82
L055-1	Serutan powder	14 oz.	3.11
	Serutan		
L053-1	Flavored	12 oz.	3.11
L056-1	Siblin granules	16 oz.	5.98
	Surfak cap.		
L057-1	240 mg.	100	9.97
L059-1	Swiss Kriss	3 1/4 oz.	1.99
L064-1	Veracolate tabs	100	2.24

NEW ITEM NRTA-AARP FORMULA No. 246

NATURAL DIGESTIVE ENZYMES

An aid in the digestion of starches, fat and proteins:

Each tablet contains:

Pancreatin	2 gr.
Ox bile	2 gr.
Papain	1 gr.
Duodenal Substance	1 gr.

PRODUCT NO.	ITEM	QUANTITY	PRICE
A246-1		100	3.19

ANTACIDS

PRODUCT NO.	ITEM	QUANTITY	PRICE
A004-1	Alka Seltzer Gold	36	1.43
A002-1	Amitone Tabs.	100	1.73
A003-1	Amphojel tabs,		
	10 gr.	100	2.69
A006-1	Bisodol tabs	100	1.89
A007-1	Camalox	100	3.84
A008-1	Chooz 20's	3 Packs	1.99
A010-3	Creamalin tabs	200	4.67
A011-1	Dicarbosil	12 rolls	2.63
A013-1	Gaviscon tabs	100	4.19
A017-1	Gaviscon 2	48	4.49

COMPARE AND SAVE



	Formula No. 251		
	Antacid-Anti-gas		
A251-1	Antacid-Anti-gas	200	2.69
A012-1	Digel	100	1.69

COMPARE AND SAVE



	Formula No. 271		
	Antacid Tabs		
A271-1	Antacid Tabs	200	2.38
A271-3	Antacid Tabs	1000	9.69
A016-3	Gelusil tablets	165	2.93

PRODUCT NO.	ITEM	QUANTITY	PRICE
A015-1	Gelusil M tabs	100	2.64
A019-1	Kolantyl wafers	96	2.33
A022-1	Mylanta tabs	100	1.99
A034-1	Mylanta II tabs	60	2.08
A023-1	Mylicon tabs	100	4.61
A033-1	Mylicon '80' tabs	100	6.12

COMPARE AND SAVE

	Formula No. 263		
	Milk Magnesia		
A263-1	Milk Magnesia	200	1.59
	Phillips Milk Magnesia		
A026-1	tabs	200	2.32

COMPARE AND SAVE



	Formula No. 201		
	Antacid Tabs		
A201-1	Antacid Tabs	200	1.94
A201-3	Antacid Tabs	1000	7.39
A020-1	Maalox tabs	100	2.06

PRODUCT NO.	ITEM	QUANTITY	PRICE
A035-1	Maalox Plus tabs	100	2.42
A021-1	Maalox #2 tabs	100	3.46
A024-1	Pepto Bismol tabs	60	2.23
A025-1	Phazyme tabs	100	6.49
	Riopan		
A027-1	chew tabs	100	2.29
	Riopan		
A028-1	swallow tabs	100	2.29
A029-1	Rolaids	75	1.33
A029-3	Rolaids	150	2.24
A030-1	Syntroge tabs	100	2.36
A031-1	Titralac tabs	100	2.28
	Tums—		
A032-1	1 doz. rolls	144	2.58
A032-3	Tums	150	1.94

GENERIC PRICE LIST

Please refer to the generic prescription drug chart on pages 22 and 23. The savings could be substantial. We will be happy to quote the price of other prescription needs and medical supplies at any time, just drop us a line.

THIS IS YOUR FALL 1978 NRTA-AARP PHARMACY PRODUCT LIST. PLEASE RETAIN FOR FUTURE USE AND REFERENCE.

HEADACHE AND ARTHRITIC PAIN PREPARATIONS

PRODUCT NO.	ITEM	QUANTITY	PRICE
P002-1	Alka Seltzer (foil)	.36	1.49
P002-3	Alka Seltzer (foil)	.72	2.89
P005-1	Ascriptin	100	1.69
P005-3	Ascriptin	500	7.29

COMPARE AND SAVE



PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 371			
Extra Buffered			
P371-1	Aspirin	200	2.99
P356-1	Ascriptin A/D Tablets	100	2.11
P356-3	Ascriptin A/D Tablets	500	9.14

COMPARE AND SAVE

PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 209			
Analgesic Tabs 200			
P209-1	Anacin	200	2.19
P003-3	Anacin	200	3.49

P004-1	Anacin Arthritis Pain Formula	100	2.29
P004-3	Anacin Arthritis Pain Formula	175	3.23

COMPARE AND SAVE



PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 283			
P283-1	Aspirin 5 gr.	500	2.33
P006-3	Bayer Aspirin	300	3.22

P007-1	Bayer Timed Release Aspirin	.72	2.39
P007-3	Bayer Timed Release Aspirin	125	3.29

COMPARE AND SAVE

PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 203			
Buffered			
P203-1	Aspirin	200	1.69
*Buffered			
P203-3	Aspirin	1000	6.35
P010-1	Bufferin tablets	100	1.96
P010-3	Bufferin tablets	375	5.93

*Non-Safety Caps

Headache and Arthritic Pain Preparations (Continued)

COMPARE AND SAVE



PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 243			
Buffered Arthritis			
P243-1	Formula	100	1.39
Formula No. 243			
*Buffered Arthritis			
P243-3	Formula	300	3.49
P009-1	Bufferin Arthritis Formula	100	2.27

COMPARE AND SAVE

PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 213			
P213-1	Aspirin Comp.	200	2.29
P213-3	*Aspirin Comp.	500	4.89
P012-1	Empirin comp.	100	1.56
P012-3	Empirin comp.	250	3.35

P014-1	Excedrin tabs.	100	2.07
P014-3	Excedrin tabs.	225	4.19
P013-1	Excedrin PM tabs.	80	2.63
P011-1	Ecotrin 5 gr.	100	1.97
P011-3	Ecotrin 5 gr.	250	4.66
Lilly A.S.A.			
P020-1	Enseals 5 gr.	100	2.15
P021-1	Enseals 10 gr.	100	3.79
P015-1	Measurin	60	2.49
P019-1	Pabalate tabs.	100	4.47
P001-1	Percogesic tabs.	100	5.39
P016-1	Persistin	50	3.14
P018-1	Vanquish	60	1.48

NRTA-AARP FORMULA No. 291

Ru-Mex Pain Relievers

RU-MEX is a modern medicine for temporary relief of pain of arthritis, bursitis, lumbago, rheumatism and minor pains of joints and muscles.

TABLET contains: Salicylamide, Sodium Para Aminobenzoate, Niacin, Thiamin Mononitrate.

PRODUCT NO.	ITEM	QUANTITY	PRICE
NRTA-AARP			
P291-1	Price	100	1.95
NRTA-AARP			
P291-3	Price	300	4.99

Headache and Arthritic Pain Preparations (Continued)

COMPARE AND SAVE



PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 305			
Acetaminophen			
P305-1	5 gr.	100	1.29
P305-3	5 gr.	300	3.49
P017-1	Tylenol tablets	100	2.05
P017-3	Tylenol tablets	200	3.38

Formula No. 309

Acetaminophen Extra Strength			
P309-1	500 mg, 7 1/2 gr	200	2.89
Tylenol Extra Strength			
P357-3	Tablets	100	2.68
P008-5	Datril 500 mg	72	1.59

COLD AND ALLERGY REMEDIES

PRODUCT NO.	ITEM	QUANTITY	PRICE
Afrin Nasal			
C005-1	Spray	15cc	1.59
C005-3	Afrin Spray	30cc	2.69
C002-1	Alka Seltzer Plus	.36	1.93
C003-1	Allerest	.75	3.37
C007-1	Aspergum	.40	1.44
C008-1	Aspergum (cherry)	40	1.44
C013-1	Benzedrex Inhaler	..	1.09
C014-1	Blistex	0.14 oz.	.41
C015-1	Bromo Quinine	.50	1.77
C017-1	Bronk-aid Mist Unit	..	3.67
C018-1	Bronk-aid refills	15cc	3.27
C018-3	refills	22.5cc	4.67
C016-3	Bronk-aid tabs	.60	2.94

COMPARE AND SAVE



PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 351			
Chlorpheniramine			
C351-1	4 mg.	100	1.98
Chlortrimeton			
C009-3	4 mg	100	3.86

ALL NRTA-AARP FORMULAS APPEAR IN RED

Cold and Allergy Remedies (Cont.)

COMPARE AND SAVE

PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 403		
	Timed Release		
C403-1	Cold Caps	24	1.49
C022-3	Contac Caps.	40	5.11

C021-1	Co Tylenol		
	Cold tabs	24	1.64

COMPARE AND SAVE



PRODUCT NO.	ITEM	QUANTITY	PRICE
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Formula No. 205**Antihistamine-Analgesic**

C205-3	tabs.	100	2.28
C026-3	Coricidin tab.	100	3.63

COMPARE AND SAVE

PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 217		
	Decongestant		
C217-3	Cold tab.	100	2.49
C024-3	Coricidin D tab.	100	4.49

C028-5	Dristan tablets	100	4.77
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COMPARE AND SAVE

PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 207		
	Decongestant Nasal		
C207-1	Spray	20cc	.98
	Dristan nasal		
C027-3	spray	30cc	2.49

COMPARE AND SAVE

PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 211		
	1/4 % Phenylephrine		
C211-1	Nasal Sol.	2 oz.	.98
	Neosynephrine Solution,		
C035-1	1/4 %	1 oz.	1.29

	Neosynephrine		
C034-1	1/2 %	1 oz.	1.43
	Neosynephrine Nasal		
C036-1	Spray, 1/2 %	2 1/2 oz.	1.56
	N.T.Z. Nasal		
C033-1	Spray	2 1/2 oz.	1.53
C037-1	Ornex	40	2.63
C039-1	Primatene	60	3.09
C040-1	Primatene Mist Unit.		3.99
	Primatene Mist		
C041-1	Refills	15cc	3.59
	Primatene Mist		
C041-3	Refills	22.5cc	5.11

Cold and Allergy Remedies (Cont.)

COMPARE AND SAVE

PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 223		
	0.05% Naphazoline		
C223-1	Nasal drops	2 oz.	1.07
	Privine nose		
C042-1	drops	1 oz.	1.19

COMPARE AND SAVE

PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 221		
	Decongestant		
C221-1	Nasal Spray	30cc	1.35
C046-3	Sinex spray	30cc	2.17

Formula No. 323**Long Acting Decongestant**

C323-1	Nasal Spray	20cc	1.29
C043-3	Sinex L.A.	15cc	1.63

NEW ITEM

COMPARE AND SAVE

FORMULA No. 330

For relief of sinus headache and congestion.

C330-1	Sinus Tabs	60	1.98
C047-1	Sinutabs	30	2.09

C050-3	Vaponefrin	30cc	7.79
C052-1	Vicks Inhaler		.88

ALLERGEN ALLERGY FORMULA

ALLERGEN is a special formula for symptomatic relief of allergy conditions due to hay fever, rose fever and other pollen allergies. This fine product contains no barbiturates or habit-forming drugs.

For the relief from allergic symptoms arising of Hay Fever and other pollen allergies, insect bites, poison ivy and oak, and colds.

PRODUCT NO.	ITEM	QUANTITY	PRICE
P289-1	Formula No. 289	48	1.29
	Formula		
P289-3	No. 289	144	3.49

EX-AKE TABLETS

Buffered extra strength headache and pain tablets. Get relief from simple headache and pain due to colds, toothache and excessive muscular exertion.

Formula No. 287

P287-1	50 tablets		1.29
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NEED AN EXTRA CATALOG?

Want us to send one to a friend? Just drop us a line and we will put one in the mail.

THROAT LOZENGE

PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 269		
	Antibacterial-Anesthetic		
C269-1	Throat Lozenges	24	.98
C019-1	Cepacol Lozenge	24	.79
C020-1	Chloraseptic Loz.	18	1.12
C029-1	Listerine Lozenge	24	1.09
	Parke Davis		
C038-1	Throat Discs	60	.68
C048-1	Spec T Throat Loz.	10	.99
	Sucrets		
C049-1	Throat Loz.	24	1.38
C051-1	Vicks Cough Discs	24	1.47
	Hold Cough		
C004-1	Loz.	10's	1.07

SUPPOSITORIES

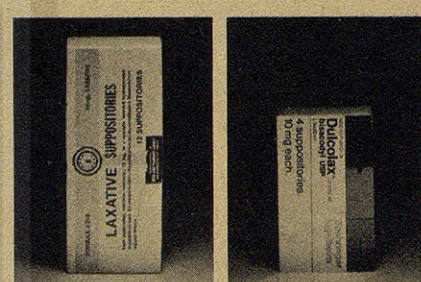
COMPARE AND SAVE

PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 215		
	Hemorrhoidal		
L215-3	Suppositories	24	1.69
L002-3	Anusol Supp.	24	3.63
L004-1	Calmol-4 Supp.	24	2.59
	Nupercainal		
L042-3	Supp.	24	3.24
L044-1	Pazo Supp.	24	3.39
	Rectal Medicone		
L032-3	Suppositories	24	2.99
L065-1	Wyanoid Supp.	12	2.09

COMPARE AND SAVE

PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 216		
	Astringent Rectal		
L216-3	Suppositories	24	1.69
	Preparation H		
L047-3	Supp.	24	3.66
	Preparation H		
L047-5	Supp.	48	6.16

COMPARE AND SAVE



PRODUCT NO.	ITEM	QUANTITY	PRICE
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Formula No. 218**Laxative Suppositories****Bisacodyl**

L218-1	10 mg.	12	2.39
L020-1	Dulcolax Supp.	4	1.59
L020-5	Dulcolax Supp.	12	4.59

Formula No. 298**Glycerine Suppositories**

L298-1	Adult Size	100	2.19
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Dear Member:

Here is your new NRTA/AARP Pharmacy Service list. It can only be a partial listing because the Service carries literally thousands of items. There is a representative prescription price list on pages 22-23, and prices of other prescription needs and medical supplies are readily available upon request.

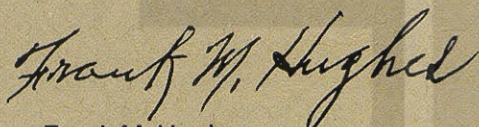
The Pharmacy Service is a non-profit organization run for the benefit of members of our two Associations, intended to help you cut the cost of many medical supplies and prescription drugs and to provide the convenience of home delivery by mail, free of postage or handling charges.

All prescriptions are carefully filled by the Service's registered pharmacists and usually mailed within two working days after receipt, with the bill enclosed. Ask your doctor if you need your prescription drug sooner than mail delivery will allow.

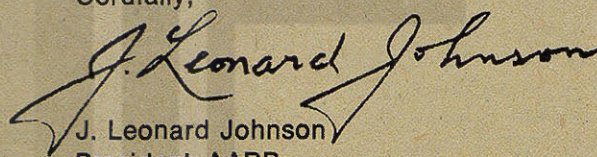
To expedite the delivery system we suggest that the orders and prescriptions be sent to the pharmacy that has been assigned to your area. Please refer to the map on page 27.

The NRTA/AARP Pharmacy Service is not in competition with your local druggist. If he can meet its prices or sell below them and provide the service you require, we encourage you to patronize him. However, there can be wide variations in price, and it is very much worth your effort to shop and compare—and to write your NRTA/AARP Pharmacy for price quotations.

Cordially,



Frank M. Hughes
President, NRTA



J. Leonard Johnson
President, AARP

EASY ORDERING INSTRUCTIONS

1. Always order under one name, the name under which you want your family charge account carried.

2. Enclose Prescription . . . which must be an original written by your doctor on his prescription form. Copies cannot be filled.

3. Refills on Prescriptions—make sure your doctor indicates the number of refills authorized. When ordering refills, use the prescription number on the label that was assigned by your NRTA-AARP Pharmacy.

4. Vitamins and Nonprescription Medications. Indicate quantity and name of product and product number or NRTA-AARP formula number.

5. Send No Money with Order. You will be billed. There is no delay for credit clearance. Payment is due upon receipt of service.

6. No Postal Charges. The NRTA-AARP Pharmacy pays the postage unless air mail and/or special delivery service is requested.

7. Send your order to the Pharmacy assigned to serve your area. See Map page 27.

Your order will be delayed if you do not:

1. Print your name and address clearly on each order.

2. Order refills by prescription number.

CREAMS AND OINTMENTS

COMPARE AND SAVE			
PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 227		
L227-3	Rectal Oint.	2 oz.	1.29
L043-1	Pazo Oint.	2 oz.	2.59
L046-1	Prep. H Oint.	1 oz.	1.79

EYE DROPS AND SOLUTIONS

PRODUCT NO.	ITEM	QUANTITY	PRICE
M049-1	Clear Eyes	15cc	1.39
M051-1	Collyrium eye drops	15cc	1.48
M091-1	Collyrium Eye Wash	6 oz.	1.63

DIABETIC SUPPLIES

PRODUCT NO.	ITEM	QUANTITY	PRICE
D002-1	Clinistix	50	1.79
D003-1	Clinitest Set		2.98
D005-1	Clinitest tabs (foil)	24	1.45
D004-1	Clinitest tabs	36	1.17
D004-3	Clinitest tabs	100	2.59
D016-1	Lilly Tes-Tape		2.76
D001-1	B-D Butterfly Swabs	100	1.80
D021-1	Diastix	100	3.59
D022-1	Keto Diastix	100	6.59

INSULIN

PRODUCT NO.	ITEM	QUANTITY	PRICE
D008-1	Regular U40		1.68
D008-3	Regular U80		3.17
D009-1	Lente U40		1.98
D009-3	Lente U80		3.64
D010-1	NPH U40		1.98
D010-3	NPH U80		3.64
D011-1	Protamine Zinc U40		1.98
D011-3	Protamine Zinc U80		3.64
D014-1	Semi Lente U40		1.98
D014-3	Semi Lente U80		3.64
D015-1	Ultra Lente U40		1.98
D015-3	Ultra Lente U80		3.64

U-100 INSULIN

Must be used with U-100 Syringe only

D013-1	Regular	3.80
D018-1	NPH	4.34
D012-1	Protamine Zinc	4.34
D019-1	Lente	4.34
D020-1	Ultra Lente	4.34

A complete line of **B-D PLASTIPAK®** Hypodermic Syringes and Needles are available only on a pre-order from your physician.

SULIN SYRINGES U-100

B-D Plastipak 1cc		
U-100, 26G, 1/2"	100	14.45
B-D Plastipak 1cc		
Micro-Fine U-100, 27G, 1/2"	100	14.45
B-D Lo-Dose 1/2cc		
U-100, 26G, 1/2"	100	14.05
(For use with 50 units or less U-100)		
B-D Lo-Dose 1/2cc		
Micro-Fine U-100, 27G, 1/2"	100	14.05
(For use with 50 units or less U-100)		

COMPARE AND SAVE

SUGAR SUBSTITUTE

Nutritive Artificial Sweetener — cyclamate-free, sugar-calorie-free, for use by those who must restrict intake of ordinary

PRODUCT NO.	ITEM	QUANTITY	PRICE
D401-1	Formula No. 401		
		4 oz.	1.99
D023-1	Sweeta	4 oz.	4.59
D295-1	Saccharin 1/4 gr. 1000		1.23
D297-1	Saccharin 1/2 gr. 1000		1.69

Retired Persons Pharmacy
1224 24th Street, N.W.
Washington, D.C. 20037

NRTA-AARP BRAND ITEMS

From

PLACE
STAMP
HERE

PHAT

NO POSTAGE REQUIRED
Please fill in and mail at once

Name _____ Apt. # _____ Zip _____
Address _____ Code _____
City _____ State _____

Dear Member:

Here is your new NRTA/AARP Pharmacy Service list. It can only be a partial listing because the Service carries literally thousands of items. There is a representative prescription price list on pages 22-23, and prices of other prescription needs and medical supplies are readily available upon request.

The Pharmacy Service is a non-profit two Associations, intended to help prescription drugs and to provide them or handling charges.

All prescriptions are carefully filled mailed within two working days and need your prescription drug sooner.

To expedite the delivery system the pharmacy that has been assigned.

The NRTA/AARP Pharmacy Service can meet its prices or sell below you to patronize him. However, it is worth your effort to shop and compare price quotations.

Frank M. Hughes
Frank M. Hughes
President, NRTA

EASY C

1. Always order under one name, under which you want your family charge carried.

2. Enclose Prescription . . . which must be original written by your doctor on his prescription form. Copies cannot be filled.

3. Refills on Prescriptions — make sure doctor indicates the number of refills at time of ordering. When ordering refills, use the prescription on the label that was assigned by your NRTA Pharmacy.

4. Vitamins and Nonprescription Medications — indicate quantity and name of product and product number or NRTA-AARP formula number.

2. Order refills by prescription number.

Retired Persons Pharmacy

1224 24th Street, N.W.

Washington, D.C. 20037

HOW TO ORDER

1. You must be a member of the **NATIONAL RETIRED TEACHERS ASSOCIATION** or the **AMERICAN ASSOCIATION OF RETIRED PERSONS** or **ACTION FOR INDEPENDENT MATURITY**.
2. Orders for prescription drugs can only be filled from a **PRESCRIPTION** signed by your physician. Your name and address should be clearly indicated thereon.
3. Be sure to indicate on your order the item name and product number as listed in our price list and the quantity desired. Whenever necessary indicate the size.

In order to reduce danger to children, federal law requires that your prescription be furnished with a child-resistant "safety cap" unless the patient or doctor requests otherwise. If you do **NOT** wish to receive your medication in a child-resistant container with a "safety cap," please indicate in space provided. THANK YOU.

I do NOT want a "Safety Cap" Container Date _____ Signed _____

Your order will be delayed if you do not:

1. Print your name and address clearly on each order.
2. Order REFILLS by prescription number, stating quantity wanted and price.
3. Order other items stating quantity and product number if known.

Name _____ Please Print Clearly
Address _____
City _____ State _____ Zip _____
Phone No. _____
Please check one: My ☐ AARP ☐ NRTA ☐ AIM Membership No. _____

☐ YES, Please send me _____ copy(s) of "Your Prescription And You" at \$2.50 ea.

Quantity	Product Number	Items Desired	Size	Price*

M092-1
M093-1
C053-1
C053-3

PRODUCT NO.
L227-3
L043-1
L046-1


CREAI

DIABETIC SUPPLIES

PRODUCT NO.	DESCRIPTION
M049-1	Cle
M051-1	Co
	c
M091-1	Co

Send as many names as you can, but please send at least one.

Before
you
forget —
please
fill in and mail
this postage-paid
card today.

A cartoon illustration of a man with a mustache, wearing a suit and tie, sitting at a desk. He is looking down at a card or document on the desk. On the desk, there is a small box with the letters 'KLE' on it. The man is holding a pen in his right hand.

Detach along dotted line and mail at once.

**AMERICAN ASSOCIATION
OF RETIRED PERSONS**

The following persons are 55 years of age or over, and I feel they can benefit from membership in The American Association of Retired Persons. Please mail complete information to:



Name _____

Address _____ Apt. # _____

City _____ State _____ Zip Code _____

Name _____

Address _____ Apt. # _____

City _____ State _____ Zip Code _____

Name _____

Address _____ Apt. # _____

City _____ State _____ Zip Code _____

NO POSTAGE REQUIRED
Please fill in and mail at once

PHAT

☐ YES. Please send me _____ copy(s) of "Your Prescription And You" at \$2.50 ea.

[illegible]

Please do not enclose payment for this order. Remit upon receipt of invoice which will be enclosed with merchandise. For your protection, please do not send currency through the mail.

NO RETURNS WITHOUT AUTHORIZATION

*** Prices Subject to Change Without Notice**

M092-1	Musterole Deep Strength . . . .	.3 oz.	2.09
M093-1	Musterole extra strong	2¼ oz.	1.87
C053-1	Vicks Vaporub .	.3 oz.	1.73
C053-3	Vicks Vaporub .	.6 oz.	2.83

ate only those eight branches as indicated on the map Page 27. Each has a walk-in facility for the use of our members and friends nearby.

D023-1	Sweeta	4 oz.	4.59
D295-1	Saccharin 1/4 gr.	1000	1.23
D297-1	Saccharin 1/2 gr.	1000	1.69

These prices effective as of February 1, 1979. Prices subject to change without notice.

Indicate quantity and name of product and product number or NRTA-AARP formula number.

ALL NRTA-AARP FORMULAS APPEAR IN RED

2. Order refills by prescription number.

FIRST CLASS
PERMIT NO. 3132
Long Beach, Calif.

BUSINESS REPLY MAIL

No postage stamp necessary if mailed in the United States

Postage will be paid by

American Association of Retired Persons

Post Office Box 2400

Long Beach, California 90801

Help your
friends enjoy
AARP's
Pharmacy Service,
too.

Use this card to
send us the names
and addresses of
everyone you know
who is 55 or over.

We'll mail them complete
information on how to join AARP.
Thank You!



NEW ITEM NRTA-AARP FORMULA No. 150 HIGH B COMPLEX-50

Super potency combination of B Complex factors in one tablet. SUGAR FREE.

Vitamin B-1 (Thiamine HCl)	50 mg.
Vitamin B-2 (Riboflavin)	50 mg.
Vitamin B-6 (Pyridoxine HCl)	50 mg.
Vitamin B-12	50 mcg.
Niacinamide	50 mg.
Folic Acid	100 mcg.
Pantothenic Acid	50 mg.
d-Biotin	50 mcg.
Choline Bitartrate	50 mg.
Inositol	50 mg.
PABA	50 mg.

IN AN ALL NATURAL BASE

PRODUCT NO.	ITEM	QUANTITY	PRICE
V150-1	Formula No. 150	100	4.19
V150-3	Formula No. 150	300	10.59

NATURAL VITAMIN E Capsules

d-Alpha Tocopheryl Acetate
From natural vegetable oils
100 I.U. in each capsule

PRODUCT NO.	ITEM	QUANTITY	PRICE
V315-1	Formula No. 315	100	1.98
V315-3	Formula No. 315	300	5.49

200 I.U. in each capsule

V317-1	Formula No. 317	100	3.29
V317-3	Formula No. 317	300	8.98

400 I.U. in each capsule

V319-1	Formula No. 319	100	4.99
V319-3	Formula No. 319	300	14.59

1000 I.U. in each capsule

V321-1	Formula No. 321	100	12.52
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PROVEN QUALITY AND PERFORMANCE

ice list. It can only be a partial listing
items. There is a representative prescrip-
prescription needs and medical supplies

CREAM

PRODUCT NO.

L227-3
L043-1
L046-1
L046-3
L031-1

F001-1
F002-1
F002-3
F008-1
F009-1
F017-3
F026-1
F027-1
M094-1
M095-1
M096-1
M503-1
L041-3
M523-1
M523-3
M541-1
M839-1

RUE

PRODUCT NO.
F003-1

PRODUCT NO.
M239-3
M028-3
M028-5

M029-5
M003-1
M062-1
M070-1
C030-1
C031-3
M081-1
M092-1
M093-1
C053-1
C053-3

1000 I.O. in each capsule
V321-1 Formula No. 321 100 12.52

PRICE
QUANTITY
100 4.19
300 10.59
ITEM
Formula No. 150
Formula No. 150
Formula No. 150

PROVEN QUALITY AND PERFORMANCE

CREAMS AND OINTMENTS

COMPARE AND SAVE			
PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 227			
L227-3	Rectal Oint.	2 oz.	1.29
L043-1	Pazo Oint.	2 oz.	2.59
L046-1	Prep. H Oint.	1 oz.	1.79
L046-3	Prep. H Oint.	2 oz.	2.89
	Rectal Medicone		
L031-1	Ointment 1½ oz.		1.63

F001-1	A & D Cream	2 oz.	1.09
F002-1	A & D Oint.	1½ oz.	.94
F002-3	A & D Oint.	4 oz.	1.52
F008-1	Bacitracin Oint.	1 oz.	.99
F009-1	Boric Acid Oint.	2 oz.	.59
F017-3	Desitin Oint.	4¼ oz.	1.79
F026-1	KY Jelly	4 oz.	1.28
F027-1	Lanacane		
	Cream	2½ oz.	2.49
M094-1	Mycitracin Oint.	1 oz.	2.43
M095-1	Myoflex Cream	2 oz.	2.07
M096-1	Neosporin Oint.	1 oz.	2.33
	Nupercainal		
M503-1	Cream	1½ oz.	1.45
L041-3	Nupercainal		
	Ointment	2 oz.	2.72
M523-1	Tegrin Cream	2 oz.	3.17
M523-3	Tegrin Cream	Econ.	5.49
M541-1	Zinc Oxide Oint.	2 oz.	.59
M839-1	Vagisil for Feminine		
	Itching	1 oz.	1.59

RUBS AND LINIMENTS

PRODUCT NO.	ITEM	QUANTITY	PRICE
F003-1	Absorbine, Jr.	4 oz.	1.73

COMPARE AND SAVE			
PRODUCT NO.	ITEM	QUANTITY	PRICE
Formula No. 239			
M239-3	Analgic Balm	greaseless 4 oz.	1.59
	Bengay,		
M028-3	greaseless 3 oz.		2.17
	Bengay,		
M028-5	greaseless 5 oz.		2.99

M029-5	Bengay, regular 5 oz.		2.99
M003-1	Banalg	2 oz.	1.39
	Exocaine Medicated		
M062-1	Rub		1.29
M070-1	Infrarub	3½ oz.	2.43
C030-1	Mentholatum	3 oz.	1.61
C031-3	Mentholatum Deep		
	Heat tube	5 oz.	2.79
M081-1	Minit Rub	3 oz.	1.76
M092-1	Musterole Deep		
	Strength	3 oz.	2.09
M093-1	Musterole extra		
	strong	2¼ oz.	1.87
C053-1	Vicks Vaporub	3 oz.	1.73
C053-3	Vicks Vaporub	6 oz.	2.83

EYE DROPS AND SOLUTIONS

PRODUCT NO.	ITEM	QUANTITY	PRICE
M049-1	Clear Eyes	15cc	1.39
M051-1	Collyrium eye		
	drops	15cc	1.48
M091-1	Collyrium Eye		
	Wash	6 oz.	1.63
M071-1	Isopto Tears	15cc	2.71
M076-1	Liquifilm Tears	15cc	2.79
E005-1	Lacrilube Eye		
	Oint	3.5gm	2.63
M090-1	Murine	45cc	2.19
M044-1	Ocusol Eye		
	Lotion	7 oz.	1.44
M512-1	Prefrin	¾ oz.	2.49
M522-1	Tearisol	15cc	2.29
E001-1	Tears Naturale	15cc	2.98
M535-1	Visine drops	15cc	1.41
M535-3	Visine drops	30cc	2.09
M542-1	Zincfrin drop-		
	tainer	15cc	3.33

CONTACT LENS SOLUTIONS

PRODUCT NO.	ITEM	QUANTITY	PRICE
M002-1	Allergan		
	Clean-N-Soak 4 oz.		2.53
M013-1	B.H. Wetting Sol. 2 oz.		2.17
M077-1	Liquifilm		
	Wetting Sol.	60cc	2.49
M520-1	Soaclens	4 oz.	2.33
M559-3	Soflens refill tabs.	24	5.17

OXYGEN

New Lif-O-Gen Model #500 Portable Emergency Oxygen Unit and Accessories

- Over 100 liters (minimum) of U.S.P. Oxygen for medicinal use. • Over 15 minutes (minimum oxygen supply at 6 liters/minute regulated minimum flow rate) • Graduated, visual contents indicator — FULL/½/EMPTY. • Adult-size, Oronasal Oxygen Mask with unique Safe-T-Swivel connection and 2 feet of tubing.

- Assembled unit weighs only 3 pounds.

M500-1	#500 Complete Unit		
	Retail \$39.95		
	NRTA-AARP Price \$29.95		

M509-1	#510 Refill Oxygen Unit		
	Retail 19.95—disposable		
	NRTA-AARP Price \$14.95		

M555-1	#555 TWIN PAC—Com-		
	plete Unit with push but-		
	ton regulator and extra		
	disposable refill cyl-		
	inder in carrying		
	case. Retail \$84.95		
	NRTA-AARP Price \$63.50		

Your NRTA-AARP Pharmacies operate *only* those eight branches as indicated on the map Page 27. Each has a walk-in facility for the use of our members and friends nearby.

DIABETIC SUPPLIES

PRODUCT NO.	ITEM	QUANTITY	PRICE
D002-1	Clinistix	50	1.79
D003-1	Clinitest Set		2.98
D005-1	Clinitest tabs (foil) 24		1.45
D004-1	Clinitest tabs	36	1.17
D004-3	Clinitest tabs	100	2.59
D016-1	Lilly Tes-Tape		2.76
D001-1	B-D Butterfly		
	Swabs	100	1.80
D021-1	Diastix	100	3.59
D022-1	Keto Diastix	100	6.59

INSULIN

PRODUCT NO.	ITEM	QUANTITY	PRICE
D008-1	Regular U40		1.68
D008-3	Regular U80		3.17
D009-1	Lente U40		1.98
D009-3	Lente U80		3.64
D010-1	NPH U40		1.98
D010-3	NPH U80		3.64
D011-1	Protamine Zinc U40		1.98
D011-3	Protamine Zinc U80		3.64
D014-1	Semi Lente U40		1.98
D014-3	Semi Lente U80		3.64
D015-1	Ultra Lente U40		1.98
D015-3	Ultra Lente U80		3.64

U-100 INSULIN

Must be used with U-100 Syringe only

D013-1	Regular		3.80
D018-1	NPH		4.34
D012-1	Protamine Zinc		4.34
D019-1	Lente		4.34
D020-1	Ultra Lente		4.34

A complete line of **B-D PLASTIPAK®** Hypodermic Syringes and Needles are stocked by your NRTA-AARP Pharmacies. They are available only on a prescription from your physician.

INSULIN SYRINGES U-100

#8409	B-D Plastipak 1cc		
	U-100, 26G, ½"	100	14.45
#8410	B-D Plastipak 1cc		
	Micro-Fine U-100,		
	27G, ½"	100	14.45
#8475	B-D Lo-Dose ½cc		
	U-100, 26G, ½"	100	14.05
	(For use with 50 units		
	or less U-100)		
#8461	B-D Lo-Dose ½cc		
	Micro-Fine U-100,		
	27G, ½"	100	14.05
	(For use with 50 units		
	or less U-100)		

COMPARE AND SAVE

SUGAR SUBSTITUTE

Non-Nutritive Artificial Sweetener Solution — cyclamate-free, sugar-free, calorie-free, for use by those who must restrict intake of ordinary sugar.

PRODUCT NO.	ITEM	QUANTITY	PRICE
D401-1	Formula No. 401		
	4 oz.		1.99
D023-1	Sweeta	4 oz.	4.59
D295-1	Saccharin ¼ gr. 1000		1.23
D297-1	Saccharin ½ gr. 1000		1.69

MISCELLANEOUS

PRODUCT NO.	ITEM	QUANTITY	PRICE
M001-1	Acidulin pulvules	100	6.34
M011-3	Back plasters		
	J & J heavy duty...	1.39	
	J & J regular .....	.80	
M012-1	Bactine Spray, 4 oz.	1.39	
M009-1	B.F.I. Powder, 1 1/4 oz.	1.47	
M045-1	Cruex Spray Powder— for chafing, itching	3.5 oz.	2.94
M048-1	Chapstick .....		.45



PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 219 For Backache		
M219-1	Relief	100	1.89

M047-1	Bonine	100	12.27
D006-1	Co-Salt	3 oz.	.89
M546-1	Debrox Ear Drops	15cc	2.13
M057-1	Doans Pills .....	.48	1.99

COMPARE AND SAVE



PRODUCT NO.	ITEM	QUANTITY	PRICE
	Formula No. 349 Dimenhydrinate 50 mg tabs For Motion		
M349-1	Sickness	100	2.49
M058-1	Dramamine	100	6.92

M064-1	Festal	100	6.95
M548-1	Kaopectate Conc.	8 oz.	1.86
M099-1	No Doz	60	1.83
M514-1	Q-Tips	170	.97
M534-1	Tucks Medicated Pads	100	2.99

DENTAL NEEDS

PRODUCT NO.	ITEM	QUANTITY	PRICE
T002-1	Anbesol	0.74 oz.	2.79
T003-3	Amosan .....	.40	2.85
T023-1	Glyoxide	2 oz.	2.98
T024-1	J & J Dental Floss	200 yds.	2.25
T025-1	J & J Dental Tape	100 yds.	2.47
	Pearl Drops		
T031-1	Regular	3 oz.	1.47
T032-1	Spearmint	3 oz.	1.47
T038-1	Sensodyne Paste	4 oz.	1.63
T039-1	Stimudents 4 Pkgs. of 25		.78
T040-1	Thermodent Paste	4 1/4 oz.	1.47

DENTURE NEEDS

COMPARE AND SAVE

PRODUCT NO.	ITEM	QUANTITY	PRICE
	E Z Effervescent Blue Denture Cleanser		
T019-1	Tablets	80	1.69
T036-1	Polident Tablets	40	1.37
T036-3	Polident Tablets	84	2.43
T017-1	Efferdent Tablets	40	1.37
T017-3	Efferdent Tablets	96	2.74
T004-1	Benzodent	1 oz.	2.12
T015-1	Dentu Cream (Wernet's) .....	.575 oz.	1.47
	EZO Denture Cushions		
T060-1	Uppers Reg.	12	1.36
T061-1	Lowers Reg.	15	1.36
T021-1	Fasteeth	3 1/2 oz.	1.94
T022-1	Fixodent	2 1/2 oz.	1.84
T027-1	Orafix	2 1/2 oz.	1.49
	Polident		
T034-1	Dentu Grip (Adhesive)	3.55 oz.	2.47
T035-1	Denture Powder (Cleanser)	10 oz.	1.58
T033-3	Poli-Grip	2.5 oz.	1.56
T037-1	Rigident powder (Adhesive)	3 oz.	1.99
T001-1	Super Poli-grip	2.4 oz.	1.74

HELP US CELEBRATE PHARMACY NUMBER EIGHT

The fall of 1978 will introduce our newest addition, PENNSYLVANIA RETIRED PERSONS PHARMACY located just outside Philadelphia, Pennsylvania. So, after you have visited Independence Hall and seen the Liberty Bell, take a short drive out to 450 YORK ROAD, WARMINSTER, PA., 18974. See this most modern pharmacy with lots of free parking. Meet our friendly folks, join them in coffee and a nice tour and chat. They will be delighted to meet with you. Everyone is invited and all will be made most welcome. Help us celebrate!

TOOTHBRUSHES

PRODUCT NO.	ITEM	PRICE
	DR. WEST'S	
T011-1	Soft .....	.49
T010-1	Medium .....	.49
T009-1	Hard .....	.49
T016-1	Denture .....	.67
	LACTONA	
T012-1	Natural Bristle, Med.	.98
T013-1	Nylon, Bristle, Med.	.79
T043-1	Oral-B 35 Toothbrush	.84
T029-1	Oral-B 40 Adult ...	.84
T030-1	Oral-B 60 Adult ...	.84
T028-1	Oral-B Denture Brush	.78

SQUIBB'S BROXODENT AUTOMATIC*
Contains electric unit with 4 brushes.
Controlled action to prevent injury to soft tissues and enamel.

PRODUCT NO.	PRICE
T018-1 NRTA-AARP Price	20.50
T005-1 Refill Brushes ... 2's	1.19

FOOT REMEDIES

DR. SCHOLLS

PRODUCT NO.	ITEM	QUANTITY	PRICE
M033-1	Insoles Women ..	5-10	.74
M034-1	Insoles Men	8-12	.74
M035-1	Zino Corn pads ...	12	.74
M038-1	Zino Callus pads ...	6	.74
M039-1	Foam Ease Corn pads	12	.57
M040-1	Foam Ease Callus pads	6	.57
M041-1	2 drop corn/callus remover .....		.89
M042-1	Foot Powder	7 oz.	1.44
M563-1	Soap and Soak ...	10's	1.09
M564-1	Moleskin 7" x 30" Ea.		1.59
M066-1	Moleskin 3 x 4	4	.61
M833-1	Odor destroying Insoles	1 pr.	1.36

This is only a partial listing of Dr. Scholl's products.

M056-1	Desenex Soap 3 1/4 oz.	.73
M054-3	Desenex Oint. 1.8 oz.	2.27
M055-1	Desenex Powder 3 oz.	2.16
M053-1	Desenex Aerosol Spray	2.7 oz. 2.23
M072-1	Johnson Foot Soap	large 1.19
M700-1	Johnsons Odor Eater . . .	3 pr. 2.99
M531-1	Tinactin Cream 1/2 oz.	2.85
M532-1	Tinactin Liquid 1/3 oz.	2.48
M533-1	Tinactin Powd. 1 1/2 oz.	1.76
M065-1	NP-27 Liquid . . .	4 oz. 1.88
	For Athlete's Foot	

25,000,000 PRESCRIPTIONS

Your NRTA-AARP Pharmacies were awarded plaques by many major pharmaceutical manufacturers in recognition of having filled 25,000,000 prescriptions. Our thanks to them and to you.

FIR

PRODUCT NO.	
F004-1	
F005-1	
F006-1	
F010-1	
F010-3	
F010-5	

BAND-AI

F011-1	
F012-1	
F011-5	
F013-1	

F023-1	
F023-2	
F023-3	
F025-1	
F024-1	
F020-0	

F031-1	
F031-3	
F032-1	
F032-3	
F033-1	
F033-3	

F034-1	
F035-1	

F036-1	
F036-3	
F037-1	
F037-3	

F022-1	
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F021-1	
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MICR

F015-1	
F015-3	

F016-1	
F016-3	

FUTU

F040-2	
F040-3	
F040-4	

FIRST AID SUPPLIES

PRODUCT NO.	ITEM	QUANTITY	PRICE
ADHESIVE TAPE			
F004-1	1/2 in. x 10 yd.	1.02	
F005-1	1 in. x 10 yd.	1.58	
F006-1	2 in. x 5 yd.	1.58	
F010-1	Cotton .....2 oz.	1.05	
F010-3	Cotton .....4 oz.	1.89	
F010-5	Cotton .....1 lb.	6.17	

BAND-AID BRAND Adhesive Bandage

F011-1	1" strips .....30	1.16	
F012-1	assorted strips ..70	1.57	
F011-5	3/4 in. strips ....100	2.59	
F013-1	strips & spots ...30	1.09	

GAUZE BANDAGE

F023-1	2 in. ....	.70	
F023-2	3 in. ....	.96	
F023-3	4 in.	1.16	
F025-1	Gauze surgical 5 yds.	3.33	
F024-1	Gauze stretch ..2 in.	.70	
F020-0	Gauze stretch ..3 in.	.96	

STERILE PADS

F031-1	2x2 .....25	1.17	
F031-3	2x2 .....100	4.24	
F032-1	3x3 .....25	1.47	
F032-3	3x3 .....100	5.29	
F033-1	4x4 .....25	2.46	
F033-3	4x4 .....100	8.97	

TELFA ADHESIVE PADS

F034-1	2x3 .....20	1.39	
F035-1	3x4 .....20	2.19	

TELFA STERILE PADS

F036-1	2x3 .....20	1.17	
F036-3	2x3 .....100	4.69	
F037-1	3x4 .....20	1.94	
F037-3	3x4 .....100	7.69	

F022-1	AUTO FIRST AID TRAVEL KIT	5.49	
F021-1	FIRST AID CREAM ..	.89	

MICROPORE FIRST AID TAPES

Paper 3M

F015-1	1/2 in x 180 in.....	.87	
F015-3	1 in. x 180 in.....	1.39	

Plastic 3M

F016-1	1/2 in x 180 in.....	.87	
F016-3	1 in x 180 in.....	1.39	

FUTURO ELASTIC BANDAGES

F040-2	Elastic bandage 2 in.	1.79	
F040-3	Elastic bandage 3 in.	1.99	
F040-4	Elastic bandage 4 in.	2.47	

SUNMARK RUBBER GOODS*

PRODUCT NO.	ITEM	QUANTITY	PRICE
H018-1	Rubber Gloves, Waterproof, Size: Sm. Med. Lg. ...Pair	\$.98	

H053-1	Hot Water Bottle Deluxe—4 Year	NRTA-AARP Price	4.98
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H054-1	Ice Caps Ice Cap, 6 in. used for head and face.	NRTA-AARP Price	2.98
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H054-2	Ice Cap, 9 in. used for all parts of the body.	NRTA-AARP Price	3.35
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H065-3	Fountain Syringes Deluxe—4 Year	NRTA-AARP Price	4.98
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H064-1	Folding Syringe.	NRTA-AARP Price	4.98
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H062-1	Feminine Bulb Syringe 8 oz. Capacity.	NRTA-AARP Price	3.89
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H063-3	Combination Hot Water Bottle and Fountain Syringe Deluxe—4 Year	NRTA-AARP Price	5.95
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H016-1	Invalid Cushions All Rubber 16 inches.	NRTA-AARP Price	6.95
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H061-1	Rectal Syringe Adult size, 8 oz. Capacity.	NRTA-AARP Price	2.69
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SUNMARK HEATING PADS*

M068-1	Two Year Warranty, 100% waterproof—washable cover.	NRTA-AARP Price	6.99
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M068-3	Five Year Warranty, 100% waterproof—washable cover.	NRTA-AARP Price	9.97
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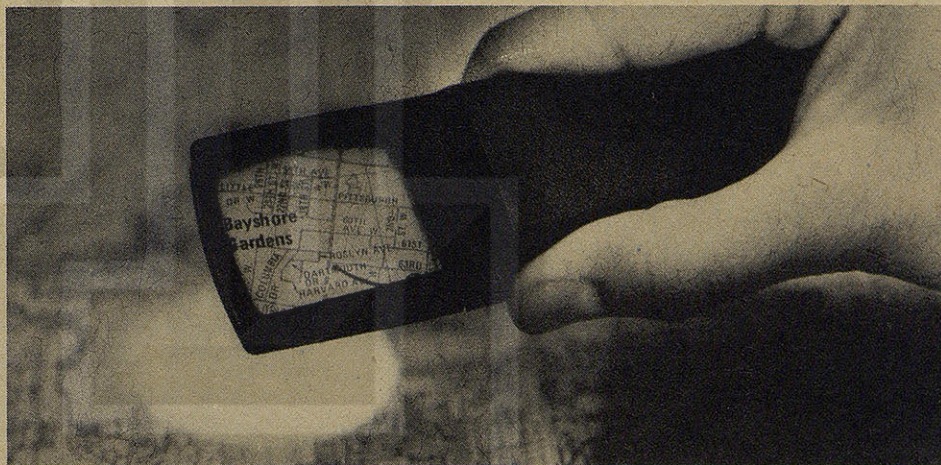
M827-0	Moist Heat Pad with washable terry cloth cover and cellulose sponge—100% waterproof.	NRTA-AARP Price	9.79
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FEVER THERMOMETER

PRODUCT NO.	ITEM	QUANTITY	PRICE
M529-1	Silver Mercury (oral)	1.62	
M528-1	Red Mercury (oral)	2.19	

PRESCRIPTION REMINDERS

- ... Never take medicine in the dark.
- ... Always check the labels before taking.
- ... Never take a "friend's" medication—always check with your physician first.
- ... Always check the date of a prescription and discard if old or out of date.
- ... Most medications should be stored in a cool, dry place.



IF WE LISTED ALL THE USES FOR OUR LIGHTED MAGNIFIER, YOU'D NEED IT TO READ THEM.

For example; maps, menus, phone directories, lists, stamps, coins, stock quotations, patterns, contact prints. These and anything else—in home, office or car—that needs to be seen bigger and brighter needs this high

quality optical instrument. The water-clear, distortion free acrylic lens delivers a clear, sharp, bright image. The hi-intensity lamp provides a clean white beam. Lamp and AAA batteries (included) are replaceable world-wide.

M089-1 Lighted Magnifier NRTA-AARP Price 3.59

*See page 7

These prices effective as of February 1, 1979. Prices subject to change without notice.

17

HEALTH AND BEAUTY AIDS

MODAGE

Members . . . of NRTA and AARP can purchase a fine line of cosmetics comparable to the finest available at any price. The NRTA/AARP cosmetic line is called Modage and is specially prepared for our members at a price they can afford.

PRODUCT NO.	ITEM	QUANTITY	PRICE
M088-1	Deep cleansing lotion	8 oz.	2.25
M086-1	Rosewater and glycerin	8 oz.	2.50
M085-1	Moisture lotion	8 oz.	2.50
M087-1	Skin freshener	8 oz.	2.25



PRODUCT NO.	ITEM	QUANTITY	PRICE
M538-1	NRTA-AARP Vitamin E Skin Oil, 28,000 I.U.	1 oz.	3.95
M536-1	NRTA-AARP Vitamin E Skin Cream, 15,000 I.U. Total	2 oz.	2.95
M537-1	NRTA-AARP Vitamin E Skin Lotion, 1,000 I.U. of Vitamin E per ounce	8 ounces	2.49

NEUTROGENA

M097-1	Soap Regular	3.5 oz.	1.19
M017-1	Hand Cream	2 oz.	2.59
M833-1	Hand Cream Unscented	2 oz.	2.59
M097-7	Soap Unscented	3.5 oz.	1.19
M097-3	Bath Size Soap	5.5 oz.	1.79
M097-9	Bath Size Soap Unscented	5.5 oz.	1.79
M830-1	Rainbath Bath Gel	8 oz.	4.69
M831-1	Solid Soap Shampoo	3.5 oz.	1.19
M017-5	Hand and Skin Lotion	8 oz.	3.19
M828-1	Body Oil	8 oz.	5.19
M829-1	Dry Skin Soap	3.5 oz.	1.39
M832-1	Dry Skin Soap Unscented	3.5 oz.	1.39
M829-3	Dry Skin Soap Bath Size	5.5 oz.	1.99

COMPARE AND SAVE



PRODUCT NO.	ITEM	QUANTITY	PRICE
	ALPHA KERI		
M005-3	Bath Oil	16 oz.	5.29
M502-1	NRTA-AARP Skincare Bath Oil	16 oz.	2.69

PRODUCT NO.	ITEM	QUANTITY	PRICE
M074-1	Alpha-Keri Soap	4 oz.	1.08
	Aquacare Dry Skin Cream H.P.	2 1/2 oz.	2.44
M078-1	Lotion H.P.	8 oz.	3.04
M079-1	Aveeno Bar	3.2 oz.	1.04
M014-1	Basis Soap	bath size	1.27
M547-1	Dermassage	10 oz.	1.75
X082-1	Eclipse Sun Screen	4 oz.	2.89
M061-1	Esoterica Reg.	3 oz.	3.16
M060-1	Esoterica Fort.	3 oz.	3.54
M016-1	Grecian Formula (Men)	4 oz.	2.93
M018-1	Grecian Formula (Ladies)	4 oz.	2.93
M073-1	Keri Dry Skin Cream	2 1/2 oz.	1.87
M043-1	Keri Facial Cleanser	4 oz.	2.99
F047-1	Lanacane Lotion	6 oz.	2.07
M083-1	Mitchum Anti-Perspirant Dab on	1 oz.	2.62
	Rose Milk Lotion	12 oz.	1.99
M539-1	Rose Milk Jar	2 oz.	2.37
M540-1	Nivea Cream	6 oz.	1.89
M098-3	Noxzema Cream	4 1/2 oz.	1.39

M506-1	Oil of Olay Lot.	6 oz.	4.53
M507-1	Olay Night Cream	2 oz.	3.49
M511-1	Packers Tar Soap	3.3 oz.	1.19
M516-3	Sebulex Shampoo	8 oz.	3.42
M518-3	Selsun Blue Shampoo	8 oz.	3.19
M517-1	Selsun Blue Cream Shampoo Tube	3.5 oz.	2.09
M527-3	Tegrin Shampoo	5 oz.	2.79
M526-1	Tegrin Med. Soap		1.20
M525-1	Tegrin Lotion Shampoo	6.6 oz.	2.49

FOR MEN



OLD SPICE

M379-0	Soap on a Rope	1	2.64
M371-8	After Shave	4 3/4 oz.	2.64
M388-0	Stick Deodorant	2 1/2 oz.	1.49
M363-6	Pre-electric Lotion	5 oz.	1.79
M374-0	Body Talcum	5 oz.	1.84



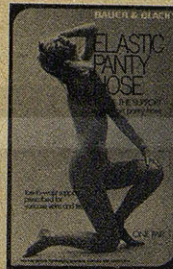
ENGLISH LEATHER

M913-1	After Shave Lotion (gift box)	4 oz.	3.17
M936-1	Cologne (plastic)	4 oz.	3.42
M963-1	After Shave (plastic)	4 oz.	2.53
M995-1	Deodorant Stick	2.75 oz.	1.39
M975-1	Shower Soap on Cord	6 oz.	2.69

BAUER & BLACK®

SUPPORT HOSIERY

ELASTIC STOCKINGS



V-2 Surgical, Sheer, Light Weight, Above Knee, Full Foot, Full Surgical Power—Seamless. Color: Beige, Taupe.

H032-1 Sm., Med., Lrg., Lrg. X Length
Retail 9.95

NRTA-AARP Price 7.96

V-4 Surgical, Sheer — Below Knee, Full Foot. Color: Beige.

H001-1 Sm., Med., Lrg., X-Lrg.
Retail 9.95

NRTA-AARP Price 7.96

Surgical Weight — Seamless, Heavy Weight, Beige Only.

H025-1 N-1 Above Knee, Open Toe
Sizes: Sm., Med., Lrg. Retail 19.95

NRTA-AARP Price 14.59

H026-1 N-1 Long (Extra 3" in thigh)
Medium, Large. Retail 21.95

NRTA-AARP Price 15.95

H029-1 N-3 Below Knee, Open Toe
Sizes: Sm., Med., Lrg. Retail 19.95

NRTA-AARP Price 14.59

Cosmetic Sheer — Seamless, Beige only

H023-0 J2 Above Knee, Full Foot
Sizes: Sm., Med., Lrg. Retail 19.95

NRTA-AARP Price 14.59

H024-0 J2 Long (Extra 3" in thigh)
Sizes: Med and Lrg. Retail 21.95

NRTA-AARP Price 15.95

P-5 Elastic Panty Hose—Toe to Waist Support, 2 Way Stretch. Beige, Taupe.

H002-1 Petite, Med., Tall, X-Tall.
Retail 11.95

NRTA-AARP Price 8.96

A-4 Men's Elastic Hose — Surgical compression. Black and Brown.

H021-1 Sm. (9-10), Med. (10-11),
Lrg. (11-12), X-Lrg. (12-13).
Retail 10.95

NRTA-AARP Price 7.96

C-4 Men's Mild compression Support
Hose for every day wear. Blk. & Brn.

H027-0 Reg. (10-11½), Lrg. (11½-14).
Retail 2.50

NRTA-AARP Price 2.19

BAUER & BLACK HOSIERY FITTING CHART

	Panty Hose	
	Height	Weight
Petite	4'11" to 5'3"	90-120
Medium	5'3" to 5'7"	120-140
Tall	5'7" to 5'9"	140-160
X-Tall	5'9" to 6'0"	160-185

Surgical Hose

Regular	Calf	
Stocking Size	Circumference*	Select
8½-9	9½-14 in.	Small
9½-10	11-17 in.	Medium
10½-11-11½	13-20 in.	Large
10½-11-11½ Long	13-20 in.	Large, Extra Long

*For legs of larger girth go to the next larger size shown.

PEDS

FASHION HOSIERY

Sheer Panty Hose
Knee-Hi Sheer Comfort Top
Control Top Panty Hose
Outsize Panty Hose
Stretch Stockings

FASHION EXCELLENCE— SUPREME QUALITY

Colors: Beige and Taupe

H-2210 Sheer Panty Hose

Sheer panty hose with that luxurious look. One size fits all.

List Price \$1.19

NRTA-AARP Price \$.91

H-4410 Knee-Hi Sheer Comfort Top

Perfect for pants. One size fits all. Packed 2 pr. to a package.

List Price 2/\$1.58

NRTA-AARP Price 2/\$1.29

H-9910 Control Top Panty Hose

Makes you look slimmer and trimmer.

Sizes:	Short	5'0"-5'3"
	Average	5'3"-5'6"
	Med. Long	5'6"-5'8"
	Long	5'6"-5'10"

List Price \$2.29

NRTA-AARP Price \$1.79

H-6610 Outsize Panty Hose

Great fitting panty hose for the hard-to-fit woman. One size fits all.

List Price \$1.49

NRTA-AARP Price \$1.12

H-7710 Stretch Stockings

Stockings that fit all sizes from 5'-5'9" with durability and comfort. One size fits all.

List Price 2/\$1.98

NRTA-AARP Price 2/\$1.59

BONUS PRESENTATION

H-1110 Paw Pampers

Fluffy, fleecy "Paw Pampers" lounging socks. 1 size fits 9-11. Colors: Red, Green, Lt. Blue, Pink.

List Price 2/\$1.58

NRTA-AARP Price 2/\$1.29

NRTA-AARP SUPPORT HOSE

NRTA-AARP

SHEER SUPPORT SEAMLESS HOSE

Women, Sizes: Small (8½ to 9), Medium (9½ to 10), Large (10½ to 11), Extra Long (10½ to 11), Extra Large (11½ to 12½) Nylon. Color: Beige only

H019-1 Pair 3.19

H020-1 2 Pair 5.89

NRTA-AARP

SHEER SUPPORT PANTY HOSE

Women's Sizes: Beige Only.

H046-1 Petite (5'-5'3") 95-115 lb

H046-2 Aver. (5'3"-5'6") 115-130 lb

H046-3 Tall (5'6"-5'8") 115-145 lb

H046-4 Extra Lrg. (5'8" and over)
145 lb and over

NRTA-AARP Price 3.69

NRTA-AARP

SUPPORT HOSE FOR MEN

Garmentless Hose, all day support. Reduces leg fatigue.

Two Sizes Fit All: Size Medium 10-11½, Large 12-14. Black, Brown, Navy.

H043-1 NRTA-AARP Price .. 2.59

FUTURO THERMOLASTIC COMFORTERS

FOR THE HAND, ANKLE, KNEE AND ELBOW

Thermolastic: a totally new concept using retained body warmth plus mild compression to help soothe stiff and aching joints. Provides thermal compression for supportive comfort.

The soothing properties lie in the blending of basic fibers to achieve the specific benefit offered by each. Cashmere blended with lambs wool for extra strength and acrylic for body and softness. Hand washable.

ELBOW COMFORTER

Measure around elbow.

X3422—Small 9-10"
X3423—Medium 10¼-11"
X3425—Large 11¼-12"
X3426—X large 12¼-13"
List Price each 4.50

NRTA/AARP Price each 3.40

HAND COMFORTER

Measure around hand at knuckles.

X3432—Ladies' Up to 8"
X3435—Men's Over 8"
List Price each 8.95

NRTA/AARP Price each 6.75

KNEE COMFORTER

Measure around knee cap.

X3442—Small 10½-12½"
X3443—Medium 12¾-14½"
X3445—Large 14¾-16½"
X3446—X large 16¾-19½"
List Price each 4.50

List Price each 4.50

NRTA/AARP Price each 3.40

ANKLE COMFORTER

Measure around ankle at smallest point.

X3452—Small 7-8"
X3453—Medium 8¼-9"
X3455—Large 9¼-10"
X3456—X large 10¼-11"
List Price each 3.95

List Price each 3.95

NRTA/AARP Price each 3.00

COLOSTOMY PRODUCTS

Please check with your area Retired Persons Pharmacy Center for the many other Coloplast and Colostomy items not listed. Compare our low prices with what you are now paying—and save!

STOMAHESIVE—Squibb

Peristomal Covering

H995-1 4" x 4" Wafers ... 5's 5.99
H996-1 8" x 8" Wafers ... 3's 14.10

FUTURO HEALTH SUPPORTS

PRODUCT NO. ITEM PRICE

H057-0 #34 **KNEE BRACE DELUXE** 4 Way, X-Action, Natural Knee Action.
Retail 5.65
NRTA-AARP PRICE 4.23

H058-0 #44 **KNEE BRACE REGULAR**
Won't slip, Firm support.
Sizes: Small (10½-12½), Medium (12¾-14½), Large (14¾-16½).
Retail 3.40
NRTA-AARP PRICE 2.55

H017-0 #45 **ANKLE BRACE** Smooth, snug fit, good support.
Sizes: Small (7"-8"), Medium (8¼"-9"), Large (9¼"-10"). Retail 2.50
NRTA-AARP PRICE 1.89

H013-0 #47 **SACROILIAC BRACE**
Relieves back pain caused by sacroiliac sprain. Allows freedom of movement without binding.
Sizes: Small (30-35), Medium (35½-41), Large (41¼-46) Retail... 10.50
NRTA-AARP PRICE 7.89

H066-0 #48 **HERNIA AID** made for the common reducible, inguinal hernia, either left, right or double. Supports both sides.
Sizes: Small (30-35"), Medium (35¼-41"), Large (41¼-46").
Retail 10.50
NRTA-AARP PRICE 7.89

H003-0 #71 **V-GARD SUPPORTER** 3" Waist band, tubular leg straps.
Retail 3.95
NRTA-AARP PRICE 2.97

H004-0 #76 **WIDE BAND SUPPORTER** 6" Waist band, relieves fatigue. Elastic leg straps.
Sizes: Small (26-32"), Medium (32¼-38"), Large (38¼-44") Retail 7.50
NRTA-AARP PRICE 5.65

H059-0 #87 **SUSPENSORY** Elastic Waist, Small, Med., Lge. pouch sizes. No leg straps. Retail 2.95
NRTA-AARP PRICE 2.21

H067-0 #23 **WRIST BRACE** Wrap around, adjustable one size.
Retail 2.00
NRTA-AARP PRICE 1.59

SANI-PAC

INCONTINENT PANTS

VELCRO closures create fully-sealed pants. No uncomfortable snaps. Fully washable, plastic coated rayon pants.

	WAIST	RETAIL	NRTA-AARP PRICE
S010-0	S (20-25)	8.49	6.39
S010-2	M (26-31)	8.49	6.39
S010-4	L (32-37)	8.49	6.39
S010-6	XL (38-44)	8.49	6.39

S011-0 Reusable Liner.

Contour-fit for your comfort. Pre-shrunk, triple-layered and super absorbent.

One size fits all.

Retail 7.39
NRTA-AARP Price 5.49

S012-0 Tape-II Super Liner, Disposable. One size fits all.

25's Retail 8.29
NRTA-AARP Price 6.19

Complete convertible system (one pants — one reusable liner—two disposable liners).

S013-0	Small (20-25)	
S013-2	Medium (26-31)	
S013-4	Large (32-37)	
S013-6	X-Large (38-44)	
Retail		12.95
NRTA-AARP Price		9.68

DISPOSABLE UNDERPADS

Super Absorbent — protects bedding from incontinence or drainage.

S024-2	(17½ x 24")	40s	6.29
S025-2	(17½ x 24")	3-40s	16.88
S026-2	(23 x 36")	20s	6.29
S028-2	(23 x 36")	3-20s	16.88

Coloplast

ORDER SIZE	BAG SIZE	ADHESIVE AREA	OPENING	PRICE PER 100
H005-1 No. 1	5"x8"	3"x3"	1½"	30.50
H006-1 No. 2	5½"x8"	3½"x4"	1½"	30.50
H008-1 No. 3	6½"x10"	4¾"x4¾"	1½"	36.40
H011-1 No. 1 Extra (odorproof)	5"x8"	3"x3"	1½"	42.50
H012-1 No. 2 Extra (odorproof)	5½"x8"	3½"x4"	1½"	43.95
H014-1 No. 3 Extra (odorproof)	6½"x10"	4¾"x4¾"	1½"	45.50
H015-1 Karaya Rings			Per Tray of 12	4.95

ALL NRTA-AARP FORMULAS APPEAR IN RED

DUNDEE MILLS HEALTHCARE PRODUCTS

Adult Diaper

Made of Birdseye cloth, highly absorbent and durable. Made waterproof by a panel of BARIGARD material. Soft and non-irritating. Easy to put on and pin. Measures 29" x 33" to fit waist size up to 50". Complete containment for total protection. Machine washable. Get several at this price.

X542-1 Adult Diaper 3.49

Reusable Underpad

Made with 2-ply, preshrunk diaper material with full 24" x 33" BARIGARD waterproof barrier. Machine washable. Better protection at lower cost and it lies perfectly flat.

X544-1 Reusable Underpad.. 3.99

Adult Bib

Full size, apron-like, waterproof center panel with Velcro closure for easy fit. No strings—soft—absorbent and preshrunk. All edges reinforced. Washable.

X545-1 Adult Bib 2.97

ALKALINE POWER CELLS

Our best, longest lasting power source. Guarantee on package.



ME91B AA 1.5 volt Sugg. Retail 2.99...4's **2.39**
ME522 9 volt Sugg. Retail 1.891 **1.49**

PLASTIC SICKROOM NEEDS

BED PAN

Comfort contour shaped. Easily cleaned.

S014-1 NRTA-AARP Price **4.59**

URINAL

With cover. Translucent and graduated.

S015-1 NRTA-AARP Price **2.19**

SITZ BATH

Includes tubing and shut off clamp. Graduated water bag.

S016-1 NRTA-AARP Price **5.49**

WATERPROOF BED SHEETING

Reversible—36" x 54"—Washable.

S017-1 NRTA-AARP Price **2.98**

BATHTUB SAFETY RAIL

Adjustable—easy to install and fit.

S018-1 NRTA-AARP Price **19.95**

WHEEL CHAIRS

ECONOMY OR DELUXE MODELS. CONTACT YOUR RETIRED PERSONS PHARMACY CENTER FOR PRICE LIST AND DESCRIPTION. DELIVERED TO YOUR DOOR AT NRTA/AARP LOW PRICES.

SELF HELP ITEMS

FOLDING ALUMINUM WALKER

S012-5 Adjustable leg lengths (31-35"). Easily folded. Rubber tips & plastic hand grips
—Retail 36.95

NRTA-AARP Price **32.95**

ALUMINUM CANES

S026-0 Anodized heavy aluminum tubing, adjustable.

Retail 8.95

NRTA-AARP Price **7.95**

QUAD CANE

S029-0 Adjustable, Wide Base provides added support.

NRTA-AARP Price **21.95**

MAGNETIC REACHING TONGS

Scissor-like action, extends reach (27") non-slip ends, magnetic tip. Sturdy 5-ply birch. Retail 6.98

S007-2 NRTA-AARP Price .. **5.87**

REMOTE CONTROL CORD SET

Switch turns T.V. or Radio on or off—15 ft. cord.

S031-0 NRTA-AARP Price ... **3.13**

ALUMINUM COMMODE CHAIR

Complete with toilet seat, plastic pail and lid. Retail **\$36.95**

S040-5 NRTA-AARP Price. **\$32.95**

ALL ABOUT OUR CUSTOMER SATISFACTION POLICY

You must be satisfied with every item we sell. If an item is not satisfactory when you receive it, return it. We'll exchange it or, if you prefer, refund the price or credit your account. Please include a copy of the invoice to facilitate proper handling. In many cases you'll want time to evaluate your purchase... so use what you buy from us. If, after a reasonable period of time, you don't get the service you have a right to expect, just let us know what is wrong. Write or call and tell us what you want. We'll make every effort to correct what's wrong. If we cannot satisfy you, we'll make a proper adjustment in cash or credit.

This policy does not apply to prescription medications ordered by your physician.

GENERIC PRESCRIPTION PRICE LIST

This is a representative list of some of the most frequently prescribed medications and their generic counterpart. Compare what you are now paying for the brand name drugs with the prices listed for the comparable generic product. We will be happy to quote on any or all of your other prescription needs, just drop us a note. There are no additional charges for postage and handling and the items will be sent to you and charged to your account. All of our pharmacies carry a full line of prescription drugs and can supply your needs promptly. We fill thousands of prescriptions daily, one at a time. These drugs are available only on a prescription from your physician.

On quantities less than 100, add 35¢ to unit price.

At Your Request, the NRTA-AARP Pharmacy Will Not Put "Safety Closure Caps" on Prescription Containers

If your household does not consist of, and you do not play host to young children, you may prefer that your medicine containers be capped with the old-style, easier-to-open covers rather than "Safety Closure Caps." Your NRTA-AARP Pharmacy makes this possible.

For prescription medications, all that is necessary is a note to the NRTA-AARP Pharmacy Service from you or your doctor requesting the old-style caps. If the prescription is a new one, ask your physician to include the request on his Rx form.

The Federal Government has enacted a law called the "Controlled Substances Act". This Act, in brief, says that all prescriptions for a group of drugs are restricted in the matter of refills and forbids refilling prescriptions for some of these medications more than five times or for over a period of more than six months. Six months after the date the prescription was written it is necessary for you to obtain a new prescription. **PRESCRIPTIONS FOR CERTAIN OTHER DRUGS CANNOT BE REFILLED AND A NEW PRESCRIPTION MUST BE PRESENTED EACH TIME. PRESCRIPTIONS FOR AMPHETAMINES OR NARCOTICS CANNOT BE SENT THROUGH THE MAIL.** Some states prohibit the return of prescription drugs.

ALL DRUGS LISTED AVAILABLE ONLY ON PRESCRIPTION

GENERIC DRUG INDICATED IN CAPITAL LETTERS

	Strength	Price/100
AMITRIPTYLINE HCL TAB. (generic for Elavil tab. 10 mg)	10 mg	\$4.00
AMITRIPTYLINE HCL TAB. (generic for Elavil tab. 25 mg)	25 mg	6.95
AMITRIPTYLINE HCL TAB. (generic for Elavil tab. 50 mg)	50 mg	13.50
AMPICILLIN CAP. (generic for Polycillin cap. 250 mg)	250 mg	7.95
BETHANECHOL CHLORIDE TAB. (generic for Urecholine tab. 10 mg)	10 mg	6.00
BETHANECHOL CHLORIDE TAB. (generic for Urecholine tab. 25 mg)	25 mg	9.00
BROMPHENIRAMINE MALEATE TAB. (generic for Dimetane tab. 4 mg)	4 mg	1.95
CHLOROTHIAZIDE TAB. (generic for Diuril tab. 250 mg)	250 mg	3.45
CHLORPHENIRAMINE TAB. (generic for Chlor-Trimeton tab. 8 mg)	8 mg	2.95
CHLORPHENIRAMINE TAB. (generic for Chlor-Trimeton tab. 12 mg)	12 mg.	3.95
CHLORPROMAZINE TAB. (generic for Thorazine tab. 10 mg)	10 mg	2.50
CHLORPROMAZINE TAB. (generic for Thorazine tab. 25 mg)	25 mg	3.40
CORTISONE ACETATE TAB. (generic for Cortone Acetate tab. 25 mg)	25 mg	4.90
CYCLANDELATE CAP. (generic for Cyclospasmol cap. 200 mg)	200 mg	4.85
CYCLANDELATE CAP. (generic for Cyclospasmol cap. 400 mg)	400 mg	8.90
DICYCLOMINE CAP. (generic for Bentyl cap. 10 mg)	10 mg	2.95
DICYCLOMINE TAB. (generic for Bentyl tab. 20 mg)	20 mg	3.85
DIPHENHYDRAMINE HCL CAP. (generic for Benadryl cap. 25 mg)	25 mg	2.00
DIPHENHYDRAMINE HCL CAP. (generic for Benadryl cap. 50 mg)	50 mg	2.90
H-R-H TAB. (generic for Ser-Ap-Es tab.)		3.25
HYDRALAZINE HCL TAB. (generic for Apresoline tab. 10 mg)	10 mg	1.85
HYDRALAZINE HCL TAB. (generic for Apresoline tab. 25 mg)	25 mg	2.70
HYDRALAZINE HCL TAB. (generic for Apresoline tab. 50 mg)	50 mg	3.70
HYDROCHLOROTHIAZIDE TAB. (generic for Hydrodiuril tab. 25 mg or Esidrix 25 mg)	25 mg	2.25
HYDROCHLOROTHIAZIDE TAB. (generic for Hydrodiuril tab. 50 mg. or Esidrix 50 mg)	50 mg	2.45
HYDRO-RESERPINE TAB. (generic for Hydropres tab. 50 mg)	50 mg	2.90
IMIPRAMINE TAB. (generic for Tofranil tab. 10 mg)	10 mg	3.75
IMIPRAMINE TAB. (generic for Tofranil tab. 25 mg)	25 mg	6.00
ISOSORBIDE DINITRATE ORAL TAB. (generic for Isordil oral tab. 5 mg)	5 mg	2.75

ALL NRTA-AARP FORMULAS APPEAR IN RED

ALL DR

ISOSORBIDE
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MECLIZINE
(generic)
METHOCAL
(generic)
METHOCAL
(generic)
NITROGLY
(generic)
NITROGLY
(generic)
NYLIDRIN
(generic)
NYLIDRIN
(generic)
PAPAVERI
(generic)
P.E.T.N. TA
(generic)
P.E.T.N. TA
(generic)
PREDNISO
(generic)
PROBENE
(generic)
PROBENE
(generic)
PROCAINA
(generic)
PROCAINA
(generic)
PROMETH
(generic)
PROMETH
(generic)
PROPANT
(generic)
QUINIDIN
(generic)
RESERPIN
(generic)
SODIUM P
(generic)
SULFISOX
(generic)
TETRACY
(generic)
TOLBUTA
(generic)
TRIAMCIN
(generic)
TRIHXYF
(generic)
TRIHXYF
(generic)

ASK YOUR DOCTOR TO PRESCRIBE DRUGS GENERICALLY

ALL DRUGS LISTED AVAILABLE ONLY ON PRESCRIPTION

GENERIC DRUG INDICATED IN CAPITAL LETTERS

Price/100		Strength	Price/100
\$4.00	ISOSORBIDE DINITRATE ORAL TAB. (generic for Isordil oral tab. 10 mg)	10 mg	\$2.95
6.95	ISOSORBIDE DINITRATE SUBLINGUAL TAB. (generic for Isordil subling. tab. 2.5 mg)	2.5 mg	2.25
13.50	ISOSORBIDE DINITRATE SUBLINGUAL TAB. (generic for Isordil subling. tab. 5 mg)	5 mg	2.50
7.95	ISOSORBIDE DINITRATE TAB. (generic for Isordil tab. 40 mg)	40 mg	6.50
6.00	MECLIZINE TAB. (generic for Antivert tab. 12.5 mg)	12.5 mg	2.45
9.00	METHOCARBAMOL TAB. (generic for Robaxin tab. 500 mg)	500 mg	5.75
1.95	METHOCARBAMOL TAB. (generic for Robaxin tab. 750 mg)	750 mg	6.75
3.45	NITROGLYCERIN T.D. CAP. (generic for Nitrobid or Nitrospan cap.)	2.5 mg	3.75
2.95	NITROGLYCERIN T.D. CAP. (generic for Nitrobid or Nitrospan cap.)	6.5 mg	5.25
3.95	NYLIDRIN TAB. (generic for Arlidin tab. 6 mg)	6 mg	3.35
2.50	NYLIDRIN TAB. (generic for Arlidin tab. 12 mg)	12 mg	5.95
3.40	PAPAVERINE L.A. CAP. (generic for Pavabid cap. 150 mg)	150 mg	3.95
4.90	P.E.T.N. TAB. (generic for Peritrate tab. 10 mg)	10 mg	1.50
4.85	P.E.T.N. TAB. (generic for Peritrate tab. 20 mg)	20 mg	1.60
8.90	PREDNISONE TAB. (generic for Deltasone tab. 5 mg)	5 mg	1.95
2.95	PROBENECID W/COLCHICINE TAB. (generic for Colbenemid tab.)		6.25
3.85	PROBENECID TAB. (generic for Benemid tab. 0.5 gm)	0.5 gm	5.95
2.00	PROCAINAMIDE CAP. (generic for Pronestyl cap. 250 mg)	250 mg	4.50
2.90	PROCAINAMIDE CAP. (generic for Pronestyl cap. 500 mg)	500 mg	6.50
3.25	PROMETHAZINE TAB. (generic for Phenergan tab. 12.5 mg)	12.5 mg	2.40
1.85	PROMETHAZINE TAB. (generic for Phenergan tab. 25 mg)	25 mg	3.50
2.70	PROPANTHELINE TAB. (generic for Probanthine tab. 15 mg)	15 mg	2.75
3.70	QUINIDINE TAB. (generic for Quinora tab. 200 mg)	200 mg	7.95
2.25	RESERPINE TAB. (generic for Serpasil tab. 0.25 mg)	0.25 mg	1.75
2.45	SODIUM FLOURIDE CHEW TAB. (generic for Luride tab. 2.2 mg)	2.2 mg	1.35
2.90	SULFISOXAZOLE TAB. (generic for Gantrisin tab. 0.5 gm)	0.5 gm	3.00
3.75	TETRACYCLINE CAP. (generic for Achromycin V. cap. 250 mg)	250 mg	2.75
6.00	TOLBUTAMIDE TAB. (generic for Orinase tab. 0.5 gm)	0.5 gm	7.75
2.75	TRIAMCINOLONE TAB. (generic for Aristocort or Kenalog tab. 4 mg)	4 mg	9.00
	TRIHEXYPHENIDYL HCL TAB. (generic for Artane tab. 2 mg)	2 mg	1.75
	TRIHEXYPHENIDYL HCL TAB. (generic for Artane tab. 5 mg)	5 mg	2.75

For many years the NRTA/AARP Pharmacy Service has recommended that members purchase medications, whenever possible, by their "generic" names rather than by their "trade" or "brand" names.

According to the Food and Drug Administration, pharmaceuticals sold under their generic or chemical name tend to be considerably less expensive than drugs marketed under well-promoted and advertised brand names.

To save money, however, you should request your doctor to prescribe drugs generically, if possible. The reason being that many physicians prescribe medications by brand rather than by generic names. If your doctor is not familiar with a medicine's generic name, ask him to add "or generic equivalent" to the prescription. This will enable the pharmacist to fill your prescription with a more reasonably priced product, if available.

Approximately 25 percent of prescription drugs most frequently prescribed are available as generics. Many drug patents will expire by 1980, making even more available generically.

In many states, pharmacists now have the freedom to use their professional training to fill prescriptions with lower-priced generic equivalents to brand name drugs, unless doctors specifically prohibit such substitution.

In selecting the generic pharmaceuticals with which it will supply members, the NRTA/AARP Pharmacy Service has always stressed quality as well as economy. All drug manufacturers must comply with Good Manufacturing Practices which are enforced by the Food and Drug Administration.

You might wish to contact several pharmacies to compare prices in order to obtain the most favorable savings possible.

NRTA/AARP Pharmacy Service will continue to select and provide more generic drugs as they become available. This is part of our ongoing program to provide quality drugs at reasonable prices to our members.

PURCHASE PRIVILEGE PROGRAM

Special Discounts for NRTA-AARP Members at Leading Hotels, Motels and Auto Rental Companies.

HOLIDAY INNS—10% discount on all rooms year-round at participating locations marked by letter (S) in Directory available free from any Inn. For reservations, call a local Inn or your area's toll-free Reservation Center (listed in Directory and in the yellow pages). Advance reservations advised. When checking in, present your current Association membership card and request the discount. Discount not applicable to commissionable, special groups, or preferred rates.

HOWARD JOHNSON'S MOTOR LODGES—10% discount off Directory rate on *double* occupancy rooms only at participating Lodges year-round. Advance reservations *required*. Discount not applicable to commissionable, special groups, or preferred rates. For reservations, call 800/654-2000, (800/522-9041 in Oklahoma; in Canada, call collect 405/848-8611). Inform Central Reservation Bank you are an Association member and request the special discount. When checking in, present your current Association membership card and request the discount. Howard Johnson's will assist local groups with tour planning for ten or more. Special discounts applicable. Call 800/323-2358 for details.

QUALITY INNS—10% discount on all rooms year-round at participating Inns marked by letter (S) in Travel Directory available at any Inn or by writing: Travel Directory, Quality Inns, 10750 Columbia Pike, Silver Spring, MD 20901. For reservations, call a local Inn or 800/228-5151, (800/642-8700 in Nebraska; in Canada, 800/261-3232; Toronto, 416/868-1112). Advance reservations advised. When checking in, present your current Association membership card and request the discount. Discount not applicable to commissionable, special groups, or preferred rates.

RAMADA INNS—10% discount on all rooms year-round at participating Inns marked by letter (R) in Ramada Inn Directory. Advance reservations advised, but not required. Call 800/228-2828. When checking in, present your current Association membership card and request the discount. Discount not applicable to commissionable, special groups, or preferred rates.

RODEWAY INNS—10% discount on all rooms year-round at all Inns. Directory available at local Inn or by writing: Director of Marketing, Rodeway, 2525 Stemmons, Dallas, TX 75207. Advance reservations through toll-free number *required*. Call 800/228-2000 (in Nebraska, call collect 402/571-2000). When checking in, present your current Association membership card and request the discount. Discount not applicable to commissionable, special groups, or preferred rates.

SCOTTISH INNS OF AMERICA—20% discount on all rooms year-round at all locations. Directory available at local Inn or by writing: Scottish Inns, 104 Bridgewater Rd., P.O. Box 11588, Knoxville, TN 37919. Advance reservations advised (can be made directly with destination Inn). Call 800/251-1962 (in Tennessee, 800/342-1819). When checking in, present your current Association membership card and request the discount. Discount not applicable to commissionable, special groups, or preferred rates.

SHERATON HOTELS & INNS—25% discount on all room rates except minimum-priced at all locations. (Local Sheratons may not offer discount during expected high occupancy dates.) For directory, write: Brochure Center, Sheraton Corp., 470 Atlantic Ave., Boston, MA 02210. Advance reservations advised. Call 800/325-3535 (800/392-3500 in Missouri) or make reservations directly with destination hotel. Identify yourself as Association member; specify discount; and, if it is available, record confirmation number. When checking in, present your current Association

membership card and give confirmation number. Discount is intended for individual business or pleasure-related travel, and does not apply to Sheraton's family plan, convention or group travel.

SONESTA HOTELS—15% discount on all rooms at all locations. (Some locations exempt themselves during heavy demand dates.) Directory available at any Sonesta Hotel or Charter House Motor Hotel or by writing: Sonesta, 390 Commonwealth Ave., Boston, MA 02215. Advance reservations *required*. Call 800/225-1372 (in Massachusetts, 800/842-1202). Identify yourself as Association member and request the discount. When checking in, present your current membership card and specify the discount. Discount not applicable to commissionable, special groups, or preferred rates.

TREADWAY INNS—10% discount off current minimum rates year-round at most Inns. Write: Director of Special Services, Treadway, Box 2757, Paterson, N.J. 07509 for Directory and Treadway Card listing participating locations. Advance reservations and Treadway Card *required*. Call 800/631-0182 (201/881-8483 in New Jersey). Inform Central Reservation Bank you are an Association member and request the discount. When checking in, present your Association membership card and the Treadway Card and specify the discount. Discount not applicable to commissionable, special groups, or preferred rates.

AUTO-RENTAL

AVIS RENT-A-CAR—15% discount on regular time and mileage rates that include gasoline; special economy rates; weekend specials and unlimited mileage rates. No discount on tour package rates. In Canada, 10% discount on prediscouted and special rates. Internationally, 10% discount on regular time and mileage rates that include gasoline. Present your current Association membership card and give rental clerk the identification number—AA-359800. For advance reservation, call 800/331-1212 and specify you are an Association member. Verify discount at the rental counter, present your current Association membership card and the identification number—AA-359800. Avis Credit Card, Avis-approved credit card or cash deposit required upon rental. Discount does not apply where arrangements are not completed in advance of actual vehicle use.

HERTZ RENT-A-CAR—35% discount on regular time and mileage rates that include gasoline; 15% discount on special economy rates, weekend specials, unlimited mileage rates; no discount on tour package rates. In Canada, 30% discount on regular time and mileage rates; 5% discount on flat rates; no discount on special economy rates, weekend specials, unlimited mileage. Internationally, 10% discount on regular time and mileage rates that include gasoline. Present your Association membership card and give the rental clerk the identification number—50075. For advance reservation, call 800/654-3131, specify you are an Association member and give the number 50075. Verify discount at the rental counter. Present a Hertz Credit Card, Hertz-approved credit card, or a cash deposit.

NRTA-AARP has obtained these discounts as a service to members but does not recommend or guarantee the services of these companies in any way. Discount arrangements are subject to change. Current discounts will be published from time to time in the Association's News Bulletins. Other hotels and motels may offer discounts to Association members. Check for possible discounts before registering.

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Your Prescription and You	3
Z-BEC	7
Zincfrin Droptainer	15
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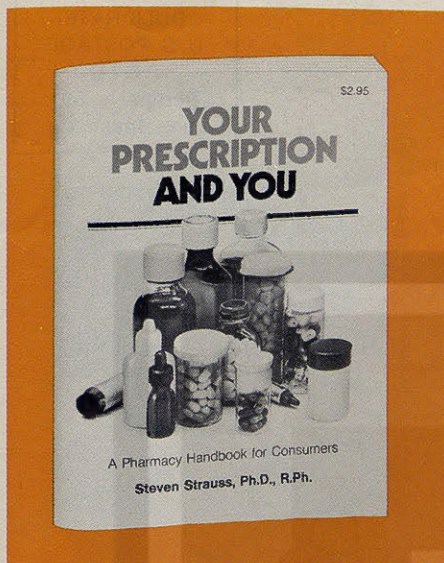
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"YOUR PRESCRIPTION AND YOU" is being sold nationwide at pharmacy counters and bookstands for \$2.95. As a special service to our members, we are making this unusual and helpful book available for only \$2.50. See Page 3.

PRODUCT NO.	PRICE
X112-1 Your Prescription and You	\$2.50

COMPARE AND SAVE

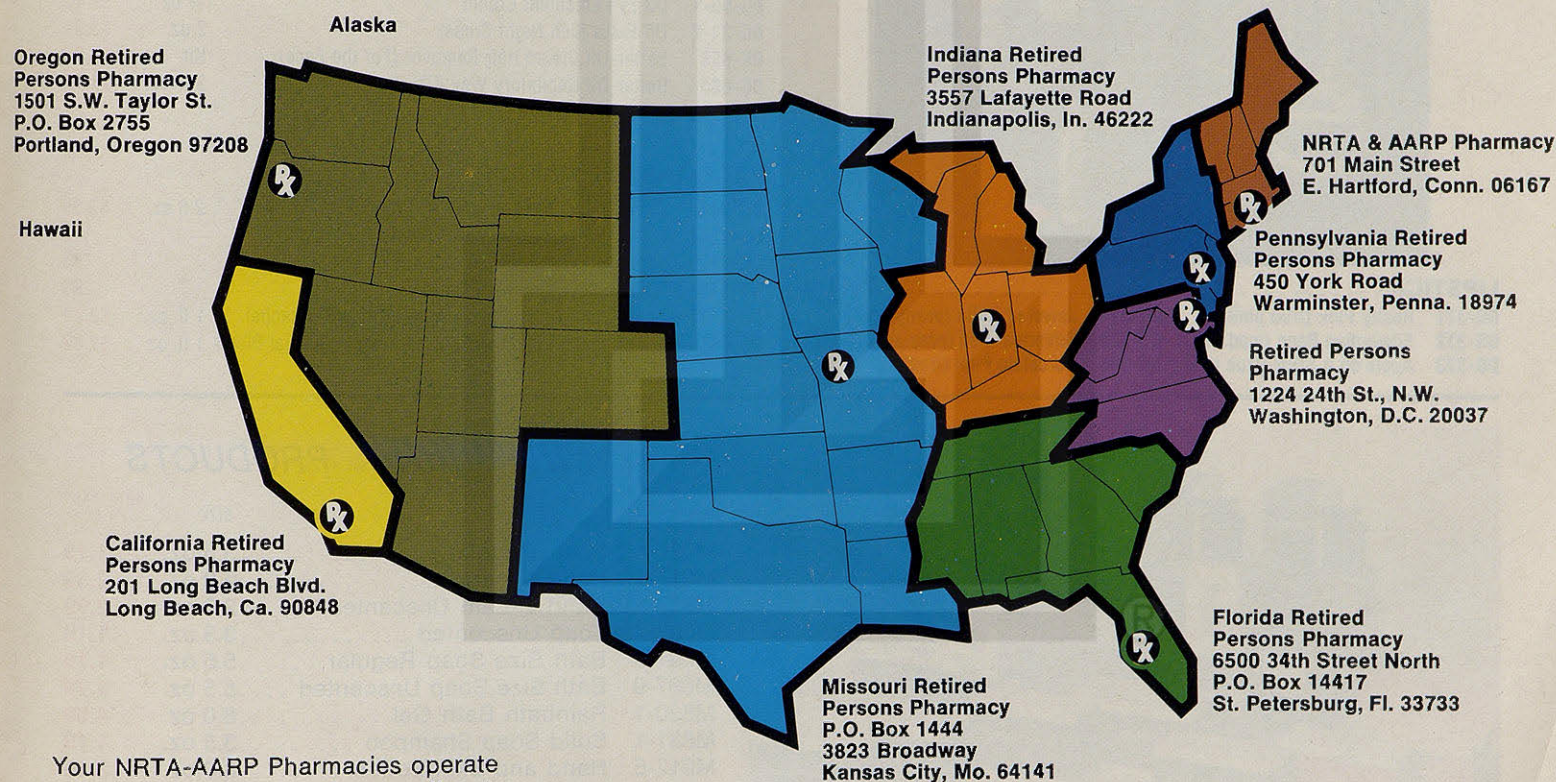


PRODUCT NO.	ITEM	QUANTITY	PRICE
V090-1	Stress Tabs 600	..60	4.79
V360-1	Formula No. 360 Stress Formula Tablets with Vit. C 600 mg.	.....100	3.99
V089-1	Stress Tabs 600 with Iron	.....60	5.23
V362	Formula 362 Stress Formula Tablets with Vit. C 600 mg. with Iron 100		4.79
V093-1	Stress Tabs 600 with Zinc	.....60	5.69
V364-1	FORMULA No. 364 Stress Formula Tablets with Vitamin C 600mg with Zinc	100	4.99



SEE PAGE 28 FOR COMPLETE LISTING AND PRICES.

The map below indicates our eight conveniently located Retired Persons Pharmacy Centers. Please direct your orders and inquiries to the pharmacy that has been assigned to serve your area. Alaska and Hawaii members should send their orders to our Portland, Oregon branch. Your cooperation is solicited and appreciated.



Your NRTA-AARP Pharmacies operate only those eight branches as listed. Each has a walk-in facility for the use of our members and friends nearby.

BULK RATE
U. S. POSTAGE
PAID
Permit No. 591
Long Beach, Ca.



HEARING AID BATTERIES

Pretested and Guaranteed

PRODUCT NO.	ITEM	QUANTITY	LIST PRICE	NRTA/AARP PRICE
ME13E	E13E	6	3.29	2.38
ME41E	E41E	6	3.39	2.46
ME312	E312E	6	3.29	2.38
ME675	EP675E	6	3.99	2.91
MS13E	S13E	6	3.99	2.94
MS41E	S41E	6	4.19	3.02
MS76E	S76E	6	4.99	3.67
MS312	S312E	6	3.89	2.84
ME401	E401E	2	2.04	1.48
ME132	E132	2	6.20	4.33



For other brands of hearing aid batteries, please request by name and number and we will send you the equivalent Eveready battery. All Eveready batteries are guaranteed and pretested.

Dorothy Gray Treatment & Cosmetic Products at NRTA/AARP Prices



LIPSTICK	\$1.98 ea.
DG-371 Really Pink (true pink)	DG-374 Jewel of India (orange red)
DG-372 Edwardian Rose (med. red)	DG-362 Silverleaf Red (rosy-red frosted)
DG-373 Apple on a Stick (true red)	DG-393 Porcelain Pink (frosted)

SATURA, BASIC DOROTHY GRAY AND BETTER-OFF

DG-62-4	Satura Moisture Cream w/Vitamin A	4 oz.	\$7.25
DG-178-8	Satura Skin Freshener	6 fl. oz.	\$3.59
DG-144	Satura Moisture Lotion w/Vitamin A	2 oz.	\$4.59
DG-17-8	DG Dry Skin Cleanser	8 oz.	\$5.95
DG-56-4	DG Cologen Moisturizing Hormone Cream	4 oz.	\$6.75
DG-81-4	DG Moisturizing Hand Cream	4 oz.	\$3.19
DG-55-1	DG Eye Emollient Cream	1/2 oz.	\$2.45
DG-31-2	DG Extra Rich Night Cream	2 oz.	\$3.95
DG-858	Better-Off Cream Hair Remover (For the Face)	Kit	\$3.95
DG-850	Better-Off Depilatory Wax Kit	3 1/4 oz.	\$4.49

FACE AND EYE MAKEUP

DG-046	Sheer Velvet Face Powder w/Protein	2.5 oz.	\$3.59
DG-125	Flipstick Eyeshadow Violet Frost		.85
DG-126	Flipstick Eyeshadow Fresh Blue		.85
DG-128	Flipstick Eyeshadow Aqua Ice		.85
DG-017	Sheer Velvet Liquid Makeup w/Protein Glo Rachel	1 fl. oz.	\$2.69
DG-037	Sheer Velvet Liquid Makeup w/Protein Special Blend	1 fl. oz.	\$2.69



Neutrogena® PRODUCTS

PRODUCT NO.	ITEM	SIZE	NRTA/AARP PRICE
M097-1	Soap Regular	3.5 oz.	1.19
M017-1	Hand Cream	2.0 oz.	2.59
M833-1	Hand Cream Unscented	2.0 oz.	2.59
M097-7	Soap Unscented	3.5 oz.	1.19
M097-3	Bath Size Soap Regular	5.5 oz.	1.79
M097-9	Bath Size Soap Unscented	5.5 oz.	1.79
M830-1	Rainbath Bath Gel	8.0 oz.	4.69
M831-1	Solid Soap Shampoo	3.5 oz.	1.19
M017-5	Hand and Skin Lotion	8.0 oz.	3.19
M828-1	Body Oil	8.0 oz.	5.19
M829-1	Dry Skin Soap	3.5 oz.	1.39
M832-1	Dry Skin Soap Unscented	3.5 oz.	1.39
M829-3	Dry Skin Soap Bath Size	5.5 oz.	1.99

SPACE LIFE SCIENCES

AN INTERNATIONAL JOURNAL OF SPACE BIOLOGY
AND MEDICINE

*Editor: Richard L. Masters (Lovelace Foundation for Medical Education
and Research, Albuquerque, N.M., U.S.A.)*



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SPACE LIFE SCIENCES

An International Journal of Space Biology and Medicine

Editor-in-chief: RICHARD L. MASTERS, Lovelace Foundation for Medical Education and Research, Albuquerque

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SPACE LIFE SCIENCES

An International Journal of Space Biology and Medicine

SPACE LIFE SCIENCES was initiated to provide a medium of expression of scientific thinking and research in the areas of space biology and space medicine. Intended as an exclusive scientific periodical to serve the international scientific groups, it concentrates in a single, comprehensive journal research papers of interest to the specialist and non-specialist concerned with the progress of space life sciences.

Volume 1 of SPACE LIFE SCIENCES appeared in 1968-1969, and publication has now resumed with Volume 2 under the editorship of Richard L. Masters, with Associate Editors Geoffrey Eglinton and Cyril Ponnampetuma. The distinguished editorial board is dedicated to the production of a journal of excellence which will present concepts of current developments, new research, and discoveries, and information pertaining to new horizons in the advancing areas of space biology and medicine.

The journal will contain original papers concerned with research and theoretical aspects of the space environment and of the interface of its effects and interactions with biological systems. Review papers by outstanding scientists will also be published, as well as research notes, book reviews, special reports, and letters to the editor. Whenever appropriate, authors will be invited to present differing opinions on aspects of the subject matter pertinent to the journal. Research papers having biological implications; e.g., the nature of planetary environments, organic geochemical analysis, paleobiological research related to the origins of life, and contamination of planetary surfaces will also be considered for publication. Theoretical aspects of chemical synthesis, molecular evolution, and extraterrestrial life will be subjects of papers, as well as clinical, physiological, biochemical, and behavioral aspects of space medicine. Instrumental and engineering problems directly related to these multidisciplinary areas may also be covered.

The editorial board and the publisher hope that SPACE LIFE SCIENCES will continue to serve and fulfill the needs of the entire international scientific fraternity engaged in space biology and space medicine. Every effort will be made to remain responsive to the needs of these scientists while maintaining high standards of quality and content.

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The \$2,000 life insurance coverage provided for your son or daughter under the NASA Dependents Life Plan expires when your child reaches the age of 19.

The NASA Plan allows conversion of this coverage to a new \$10,000 policy for your child. But you must act promptly . . . The option is available for a limited time only!

NET PREMIUM PAYMENT FOR \$10,000 OF WHOLE LIFE PURCHASED FOR MALE*, AGE 19

End of Policy Year	Annual Dividend†	Net Payment	Cash Value Increase Dur. Yr.	Net Payment Less Cash Value Increase	Cash Value
1	\$ 12.20	\$ 137.60	\$ 0	\$ 137.60	\$ 0
2	13.20	136.60	30	106.60	30
3	16.20	133.60	100	33.60	130
4	20.20	129.60	110	19.60	240
5	25.80	124.00	110	14.00	350
6	32.40	117.40	110	7.40	460
7	40.20	109.60	120	-10.40	580
8	48.80	101.00	120	-19.00	700
9	57.80	92.00	120	-28.00	820
10	67.20	82.00	130	-47.40	950
11	76.40	73.40	120	-46.60	1,070
12	85.50	64.30	130	-65.70	1,200
13	94.30	55.50	140	-84.50	1,340
14	102.00	47.80	130	-82.20	1,470
15	108.80	41.00	140	-99.00	1,610
16	114.00	35.80	130	-94.20	1,740
17	118.40	31.40	130	-98.60	1,870
18	122.90	26.90	140	-113.10	2,010
19	127.30	22.50	130	-107.50	2,140
20	132.10	17.70	140	-122.30	2,280
20 YR. TOTALS	1,415.70	1,580.30	2,280	-893.10†	
TOTALS TO 60	5,372.50	769.30	5,480	-5,000.10†	5,480
TOTALS TO 65	6,660.50	230.30	6,230	-6,299.70†	6,230

* The premium for females would be somewhat lower. Dividends and cash values would remain the same.

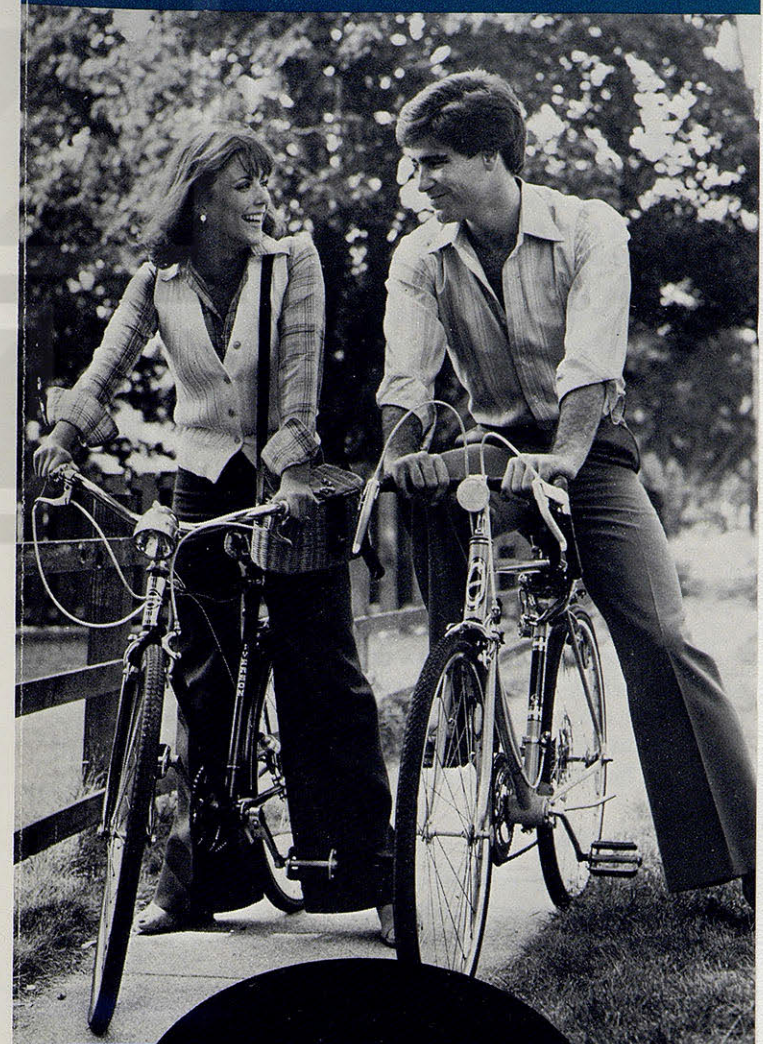
† Based on 1979 Dividend Scale. Dividends cannot be guaranteed.

T Indicates terminal dividend is included.



HOME LIFE INSURANCE COMPANY
253 Broadway, New York, N.Y. 10007

When Your Child Becomes 19...



An opportunity to give
your son or daughter
a head start toward
financial security

Exercise Your NASA Plan Option To Assure Your Child A \$10,000 Estate

UNDER THE NASA DEPENDENTS LIFE PLAN, insured children have \$2,000 of life insurance protection until they reach the age of 19. At that time, the Plan allows conversion of the child's coverage to a new individual life policy with a face amount of \$10,000.

A key feature of this coverage is that it is available without medical examination or red tape of any kind. The only requirement, in addition to payment of the appropriate premium is that the conversion be made within the period 31 days before or after the child's 19th birthday. Unless action is taken during this time, the conversion option lapses.

Why Life Insurance?

There's no better time than now to start your child on a plan of permanent life insurance. The cost is low—only pennies a day. Even more significant is the fact that your son or daughter in the years immediately ahead will move into adulthood, shouldering increased responsibilities. As education, employment, marriage and family follow in swift succession, the security of life insurance can be extremely important.

A Good Buy

The coverage offered under this plan is permanent, dividend-earning insurance. It provides an immediate estate of \$10,000 and builds substantial cash values useful in

later life. At age 29, the policy will be worth \$1,345*; at age 39, \$4,506*. On retirement at age 65, the policy will be worth \$24,950*—as compared to premium payments totaling less than half that amount.

Premium Rates

Premiums may be paid quarterly, semi-annually or annually, as follows:

	Male	Female
Quarterly	\$ 38.90	\$ 37.80
Semi-Annually	76.40	74.20
Annually	149.80	145.50

Four Dividend Options

Dividends declared by the insurance company may be used in any of four ways. They may be:

- Accumulated at interest, in which case, under present dividend scales, you may build a fund amounting to \$18,420* at age 65.
- Used to reduce premiums, which means premiums will be automatically reduced by the amount of the dividend.
- Used to purchase additional paid-up insurance, in which case the amount of protection—and cash value—may be doubled* by age 65.
- Paid in cash to the policyowner.

If Dividends Are Applied to Premiums

If dividends* are used to reduce the premiums, the net payment (premium less dividend) in the twentieth year for a male would be \$22.50 and for a female, \$18.20. By the twenty-third year for a female and the twenty-fourth year for a male, the dividend would exceed the premium and no further cash outlay would be required. Excess dividends would be returned to the policyowner in cash or used to increase the value of the policy as a hedge against inflation.

Why This Plan Makes Sense For Your Young Adult

- Your son or daughter will need life insurance as increased adult responsibilities are assumed. He or she can get started now—without worrying about meeting medical qualifications.
- It costs less to start young. Rates for a similar policy will never be lower than they are now for your child.

- A policy purchased at an early age teaches systematic thrift. Your son or daughter can pay a portion of the premium right from the start and take over full payment as soon as possible.
- Annual increases in the cash value of the policy can be used to meet emergencies or to take advantage of financial opportunities in later life.

Policy Values

Policy values in various years are as follows:

End of Year	Guaranteed Cash Value	Reduced Paid-Up Ins.	Accumulated Dividends*
5	\$ 350	\$1,040	\$ 95.70
10	950	2,540	394.90
15	1,610	3,870	1,032.50
20	2,280	4,930	2,032.90
Age 65	6,230	8,420	18,420.30

Guaranteed Insurability Option

An important feature of this coverage is the Guaranteed Insurability Option, available at time of conversion. If it is elected, your son or daughter will have the right to buy additional \$10,000 policies at ages 25, 28, 31, 34, 37 and 40—a total of \$60,000. These purchases are made at standard rates—without medical examination. Election of this option does not, however, commit your son or daughter to the purchase of additional insurance at any time in the future. He or she will have the right to make such purchases at any or all of the option ages. The additional premium for this option is:

	Male	Female
Quarterly	\$ 3.20	\$ 2.60
Semi-Annually	6.20	5.10
Annually	12.20	10.00

If you are interested in adding this option to your policy, please be sure to check the appropriate box on the application.

How To Apply

Because the availability of this insurance is guaranteed under the NASA plan, there is no need for a medical examination or a time-consuming questionnaire. Simply complete the one-page application supplied, determine the proper premium (see rates above) and make check payable to the Home Life Insurance Company. Forward your check with completed application, signed by the child and the employee, in the postage-paid envelope provided. Be sure you indicate in the appropriate place on the application which of the dividend options you prefer (see explanation above).

Be sure to mail your premium check with the completed application in the postage-paid envelope provided.

Important! Keep in mind that the application must be submitted within the 31-day period before or after the child reaches age 19.

*Based on 1979 Dividend Scale. Dividends cannot be guaranteed.

TO: Home Life Insurance Company®
253 Broadway
New York, New York 10007

RE: REQUEST FOR CONVERSION UNDER THE NASA CHILDREN'S ADDITIONAL CONVERSION PRIVILEGE

CHILD'S	NASA EMPLOYEE'S
Full Name _____	Full Name _____
Residence _____ NO. STREET	Residence _____ NO. STREET
CITY STATE ZIP	CITY STATE ZIP
Date of Birth _____ MONTH DAY YEAR	Group Certificate No. _____
Place of Birth _____ TOWN STATE COUNTRY	NASA Center Location _____
<input type="checkbox"/> Married <input type="checkbox"/> Single	Last contribution paid for Group Dependent Life Coverage for Calendar Quarter beginning <input type="checkbox"/> January <input type="checkbox"/> April <input type="checkbox"/> July <input type="checkbox"/> October Year 19____

It is hereby requested that Home Life Insurance Company issue an individual policy of insurance on the life of the child of the kind and amount described below.

Plan of Insurance Desired: WHOLE LIFE Amount: \$10,000

Premium Payments to be Made: ☐ Annually ☐ Semi-Annually ☐ Quarterly
Amount of Premium Enclosed: Male ☐ \$149.80 ☐ \$76.40 ☐ \$38.90
Female ☐ \$145.50 ☐ \$74.20 ☐ \$37.80

Automatic Premium Loan Provision: To be effective, check here ☐

Dividend Option Desired: ☐ Paid in Cash ☐ Paid-Up Insurance
☐ Reduce Premiums ☐ Accumulate at Interest
(Applicant's Social Security Number: _____).

Option to Guarantee Your Child's Future Insurability: For More Information Check Here ☐

The following person is designated as the beneficiary to receive the death proceeds of the new policy in one sum, subject to change upon request after issue.

Name _____

Relationship to Child _____

It is understood that:

- 1) The individual policy herein requested is a conversion of the dependent group life insurance provided by Group Policy Number GL-661 and its issuance is subject to the terms and conditions of the group policy.
- 2) This request and the payment of the first premium for the individual policy must be submitted to Home Life Insurance Company while the child is living and within thirty-one days before or after the child attains nineteen years of age. The individual policy will thereupon be effective as of the date the child attains nineteen years of age but only if the child is living on that date. In no event will the individual policy become effective prior to the termination of the child's life insurance under the group policy.

Signed at _____ on _____, 19____
PLACE DATE

CHILD'S SIGNATURE

HOME LIFE USE ONLY

Group Dependent Life Premium
Paid to

DATE

SIGNATURE

NASA EMPLOYEE'S SIGNATURE

Send communications to ☐ Child ☐ NASA Employee

G-636 10/78

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20325 Center Ridge Rd.

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UNITED STATES



Home Life Insurance Company, New York

253 BROADWAY/NEW YORK, N.Y. 10007/TELEPHONE (212) 233-6400

Dear NASA Employee Benefit Association Member:

Congratulations on the approaching nineteenth birthday of your child. May we extend good wishes on the occasion and express the hope that the years ahead will be healthy and productive ones for your young adult.

We want to draw to your attention that, under the NASA Dependents Life Insurance Plan, the \$2,000 coverage for your child terminates at age 19. The Plan offers the option, however, of allowing you to convert this coverage to an individual life policy of \$10,000.

The new policy is available without medical examination, provided the option is exercised within 31 days before or after the date of your child's nineteenth birthday.

You have an opportunity at this time to start your child on a lifetime insurance estate. You can make certain that, regardless of possible health problems, military service, or hazardous occupation in the future, your child will have at least \$10,000 of permanent protection, as well as gradually increasing cash values.

Furthermore you may elect an added feature called the "Guaranteed Insurability Option" which will give your son or daughter the right to buy additional insurance without a medical examination. To add this feature to the policy will require a separate application. If you are interested in more information please check the appropriate box on the attached application.

More information is given in the enclosed folder. We urge you to act promptly to guarantee continuing protection for your son or daughter in the important years ahead.

Sincerely,

NASA CONVERSION UNIT
Home Life Insurance Company



INSUR.
20325 CENTER RIDGE ROAD
ROCKY RIVER, OHIO 44116

SBR-3

Dr. Sherman P. Vinograd, M.D.
(Jocelyn 2/29/60)

Dr. and Mrs. Loren Carlson (Wife: Marian)

22 Meadowbrook Drive

Davis, CA 95616

916, 756-4504

Dr. Loren Carlson

Associate Dean

Basic II Medicine

Department of Physiology

U of CA at Davis

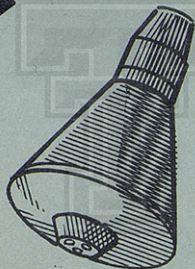
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2

VINOGRAD, DR. S. R.
NASA

observer

M/A - 6

Dr. Vinograd

Feet Altitude	Temp. °F.	mm. Hg.	In. Hg.	p. s. i.	Feet Altitude	Temp. °F.	mm. Hg.	In. Hg.	p. s. i.
63,500		43.147	1.6987	8.3433	350,000	-62.53	1.370x10 ⁻⁴	5.393x10 ⁻⁴	2.649x10 ⁻⁴
64,000		41.562	1.6363	8.0368	375,000	-30.81	5.240x10 ⁻⁵	2.063	1.013
64,500		39.977	1.5739	7.7304	400,000	2.76	2.189	8.619x10 ⁻⁷	4.233x10 ⁻⁷
65,000		38.395	1.5116	7.4244	425,000	46.72	9.853x10 ⁻⁶	3.879	1.905
66,000		36.810	1.4492	7.1179	450,000	153.6	4.996	1.967	9.661x10 ⁻⁸
68,000		35.225	1.3868	6.8114	475,000	259.8	2.840	1.118	5.491
70,000	-69.700	33.640	1.3244	6.5049	500,000	365.6	1.751	6.892x10 ⁻⁸	3.385
72,000		31.087	1.2239	6.0113	550,000	575.7	7.882x10 ⁻⁷	3.103	1.524
74,000		28.534	1.1234	5.5177	600,000	755.7	4.138	1.629	8.000x10 ⁻⁹
76,000		25.982	1.0229	5.0241	650,000	814.9	2.354	9.266x10 ⁻⁹	4.551
78,000		23.427	9.2334x10 ⁻¹	4.5302	700,000	875.4	1.410	5.550	2.726
80,000	-69.700	20.874	8.2183	4.0365	750,000	937.0	8.816x10 ⁻⁸	3.471	1.705
82,000	-67.201	19.306	7.6009	3.7333	800,000	999.2	5.718	2.251	1.106
84,000	-64.702	17.738	6.9835	3.4300	850,000	1062	3.828	1.507	7.402x10 ⁻¹⁰
86,000	-62.202	16.170	6.3660	3.1267	900,000	1125	2.634	1.037	5.093
88,000	-59.703	14.601	5.7486	2.8235	950,000	1188	1.855	7.304x10 ⁻¹⁰	3.587
90,000	-57.204	13.033	5.1312	2.5202	1,000,000	1251	1.335	5.256	2.582
92,000	-53.942	12.085	4.7578	2.3368	1,100,000	1377	7.300x10 ⁻⁸	2.874	1.412
94,000	-50.680	11.136	4.3843x10 ⁻¹	2.1534x10 ⁻¹	1,200,000	1503	4.242	1.670	8.202x10 ⁻¹¹
96,000	-47.417	10.188	4.0109	1.9700	1,300,000	1629	2.591	1.020	5.010
98,000	-44.155	9.2390	3.6374	1.7865	1,400,000	1754	1.652	6.502x10 ⁻¹¹	3.194
100,000	-40.893	8.2906	3.2640	1.6031	1,500,000	1878	1.090	4.293	2.109
110,000	-24.599	5.3678	2.1133	1.0380	1,600,000	2001	7.419x10 ⁻¹⁰	2.921	1.435
120,000	-8.320	3.5329	1.3909	6.8315x10 ⁻²	1,700,000	2123	5.192	2.044	1.004
130,000	7.944	2.3608	9.2943x10 ⁻²	4.5650	1,800,000	2238	3.726	1.467	7.205x10 ⁻¹²
140,000	24.192	1.6000	6.2992	3.0939					
150,000	40.425	1.0988	4.3261	2.1248					
160,000	49.100	7.6304x10 ⁻¹	3.0041	1.4755					
170,000	49.100	5.3096	2.0904	1.0267					
180,000	39.310	3.6899	1.4527	7.1351x10 ⁻³					
190,000	18.288	2.5307	9.9635x10 ⁻³	4.8937					
200,000	-2.735	1.7065	6.7186	3.2999					
210,000	-23.697	1.1310	4.4528	2.1870					
220,000	-44.659	7.3452x10 ⁻²	2.8918	1.4203					
230,000	-65.602	4.6667	1.8373	9.0241x10 ⁻⁴					
240,000	-86.525	2.8938	1.1393	5.5958					
250,000	-105.340	1.747	6.877x10 ⁻⁴	3.378					
260,000	-105.340	1.042	4.104	2.016					
270,000	-105.340	6.223x10 ⁻³	2.450	1.203					
280,000	-105.340	3.716	1.463	7.186x10 ⁻⁵					
290,000	-105.340	2.221	8.746x10 ⁻⁵	4.296					
300,000	-105.3	1.328	5.229	2.568					
325,000	-90.12	3.988x10 ⁻⁴	1.570	7.711x10 ⁻⁶					

CONVERSION FACTORS

1 mm. Hg. @ 32°F = 1333.3 Dynes/cm²
 1000 microns
 0.03937 In. Hg.
 0.5357 In. H₂O @ 15°C
 0.019339 Lbs./In.²

1 Inch Hg. @ 32°F = 0.49116 Lbs./In.²
 25.400 mm. Hg.
 13.61 In. H₂O @ 15°C

Lb./In.² = 2.036 In. Hg.
 27.70 In. H₂O
 51.7147 mm. Hg.

1 Standard Atmosphere = 29.921 In. Hg. @ 32°F
 760 mm. Hg.
 14.696 Lbs./In.²

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ALTITUDE PRESSURE TEMPERATURE TABLES

GUARDITE COMPANY

Division of
American-Marietta Company
Wheeling, Illinois

Designers and Fabricators of
Environmental Equipment

From ARDC Model Atmosphere 1956

Feet Altitude	Temp. °F.	mm. Hg.	In. Hg.	p. s. i.
0	59.000	759.99	29.921	14.696
500	57.217	746.76	29.400	14.440
1000	55.434	733.53	28.879	14.184
1500	53.652	720.27	28.357	13.928
2000	51.869	707.03	27.836	13.672
2500	50.086	693.80	27.315	13.416
3000	48.304	680.51	26.831	13.178
3500	46.521	667.24	26.348	12.941
4000	44.739	653.95	25.864	12.703
4500	42.956	640.68	25.381	12.466
5000	41.174	627.38	24.897	12.228
5500	39.392	614.00	24.449	12.008
6000	37.610	600.63	24.001	11.788
6500	35.827	587.22	23.552	11.568
7000	34.045	573.84	23.104	11.348
7500	32.263	560.46	22.656	11.128
8000	30.481	547.02	22.241	10.924
8500	28.700	533.58	21.826	10.720
9000	26.918	520.14	21.411	10.516
9500	25.137	506.70	20.996	10.312
10,000	23.355	493.26	20.581	10.108
10,500	21.574	479.82	20.197	9.9200
11,000	19.793	466.38	19.814	9.7318
11,500	18.012	452.94	19.430	9.5432
12,000	16.231	439.50	19.047	9.3551
12,500	14.450	426.06	18.663	9.1665
13,000	12.669	412.62	18.309	8.9926
13,500	10.888	399.18	17.955	8.8188
14,000	9.108	385.74	17.601	8.6449
14,500	7.327	372.30	17.247	8.4710
15,000	5.546	358.86	16.893	8.2972
15,500	3.766	345.42	16.567	8.1370
16,000	1.985	331.98	16.241	7.9769
16,500	0.205	318.54	15.914	7.8163
17,000	-1.576	305.10	15.588	7.6562
17,500	-3.356	291.66	15.262	7.4961
18,000	-5.136	278.22	14.962	7.3487
18,500	-6.916	264.78	14.662	7.2014
19,000	-8.695	251.34	14.361	7.0535
19,500	-10.475	237.90	14.061	6.9062
20,000	-12.255	224.46	13.761	6.7589

- 1 -

Feet Altitude	Temp. °F.	mm. Hg.	In. Hg.	p. s. i.
20,500	-14.034	342.52	13.485	6.6233
21,000	-15.814	329.08	13.209	6.4877
21,500	-17.593	315.64	12.934	6.3527
22,000	-19.373	302.20	12.658	6.2171
22,500	-21.152	288.76	12.382	6.0815
23,000	-22.931	275.32	12.109	5.9459
23,500	-24.710	261.88	11.836	5.8103
24,000	-26.489	248.44	11.562	5.6747
24,500	-28.268	235.00	11.287	5.5391
25,000	-30.047	221.56	11.013	5.4035
25,500	-31.826	208.12	10.738	5.2679
26,000	-33.604	194.68	10.464	5.1323
26,500	-35.383	181.24	10.189	5.0000
27,000	-37.161	167.80	9.915	4.8677
27,500	-38.940	154.36	9.641	4.7354
28,000	-40.718	140.92	9.367	4.6031
28,500	-42.496	127.48	9.093	4.4708
29,000	-44.275	114.04	8.819	4.3385
29,500	-46.053	100.60	8.545	4.2062
30,000	-47.831	87.16	8.271	4.0739
30,500	-49.609	73.72	7.997	3.9416
31,000	-51.387	60.28	7.723	3.8093
31,500	-53.164	46.84	7.449	3.6770
32,000	-54.942	33.40	7.175	3.5447
32,500	-56.720	20.00	6.901	3.4124
33,000	-58.497	6.56	6.627	3.2801
33,500	-60.275		6.353	3.1478
34,000	-62.052		6.079	3.0155
34,500	-63.830		5.805	2.8832
35,000	-65.607		5.531	2.7509
35,500	-67.385		5.257	2.6186
36,000	-69.162		4.983	2.4863
36,500	-70.940		4.709	2.3540
37,000	-72.718		4.435	2.2217
37,500	-74.495		4.161	2.0894
38,000	-76.273		3.887	1.9571
38,500	-78.050		3.613	1.8248
39,000	-79.828		3.339	1.6925
39,500	-81.605		3.065	1.5602
40,000	-83.383		2.791	1.4279
40,500	-85.160		2.517	1.2956
41,000	-86.938		2.243	1.1633
41,500	-88.715		1.969	1.0310

- 2 -

Feet Altitude	Temp. °F.	mm. Hg.	In. Hg.	p. s. i.
42,000	-90.493		1.695	0.9000
42,500	-92.270		1.421	0.7677
43,000	-94.047		1.147	0.6354
43,500	-95.825		0.873	0.5031
44,000	-97.602		0.599	0.3708
44,500	-99.380		0.325	0.2385
45,000	-101.157		0.051	0.1062
45,500	-102.935			0.0000
46,000	-104.712			
46,500	-106.490			
47,000	-108.267			
47,500	-110.045			
48,000	-111.822			
48,500	-113.600			
49,000	-115.377			
49,500	-117.155			
50,000	-118.932			
50,500	-120.710			
51,000	-122.487			
51,500	-124.265			
52,000	-126.042			
52,500	-127.820			
53,000	-129.597			
53,500	-131.375			
54,000	-133.152			
54,500	-134.930			
55,000	-136.707			
55,500	-138.485			
56,000	-140.262			
56,500	-142.040			
57,000	-143.817			
57,500	-145.595			
58,000	-147.372			
58,500	-149.150			
59,000	-150.927			
59,500	-152.705			
60,000	-154.482			
60,500	-156.260			
61,000	-158.037			
61,500	-159.815			
62,000	-161.592			
62,500	-163.370			
63,000	-165.147			

- 3 -

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Enlightened
Employee
Health

HEALTH INFORMATION BULLETIN
TO: VINOGRAD, S. P.
SBR-3

Health Bulletin No. 14

SMOKING

Slow-motion Suicide



NASA

National Aeronautics and
Space Administration

Washington, D.C.
20546

Occupational Medicine Program

Fifteen years ago, in 1964, the first Surgeon General's Report on Smoking and Health was released. It cited strong medical evidence that smoking was a threat to the health of those who smoked. In particular, it suggested that smoking could cause lung cancer. That report led to the warning label now carried by law on all packages of tobacco products. It also kicked off a boom in new brands of cigarettes: new filters and the low-tar-and-nicotine "lights."

A new Surgeon General's report has now been issued—1200 pages summarizing 30,000 studies over twenty years of intense smoking research. With this report, the case against smoking has become overwhelmingly strong. So many diseases and serious health problems are shown to be linked to smoking that the hazard is now impossible to ignore. From now on, anyone who continues to smoke should know that he or she is committing, as HEW Secretary Joseph Califano calls it, "slow-motion suicide."

Here are some of the things the new report reveals:

- Overall, those who are now smoking have an approximately 70% greater chance of dying from disease than non-smokers (100% for 2-pack-a-day smokers).
- Smokers have a shorter life expectancy at any given age than do nonsmokers. That gap is greatest in the 45- to 64-year age group, for both women and men.
- Cigarette smokers of all ages are nearly twice as likely to die of cardiovascular disease (heart attack).
- Smoking can now be considered a major, independent risk factor for heart attack.
- The strongest link between tobacco use and any disease was once again shown for lung cancer. The death rate for this disease among lifetime smokers is 16 times as high as for nonsmokers.
- Cigarette smoke acts "synergistically" to increase the damage done by many environmental poisons (asbestos, carbon monoxide, and most industrial carcino-

gens) and drugs (alcohol, caffeine), and to worsen many diseases (hypertension and allergies, for example).

- The disease-causing effect of cigarettes is related to dosage—the number and kind of cigarettes smoked. Low tar and nicotine brands do result in a lower risk of death from lung cancer.

Bad News for Women Smokers



The new report provided, for the first time, a detailed look at the effect of tobacco use on women smokers. For the previous report, there was little evidence on the subject because so few women had smoked before 1964. This time there were plenty of subjects and plenty of statistics to go on.

Women Catching Up Fast. You've come a long way, baby. Deaths from lung cancer among women have gone up 5 times since 1958. The Surgeon General predicts that within five years lung cancer will pass breast cancer as the leading cause of cancer death in women. More women are smoking more. And, says HEW's Califano, "Women who smoke like men die like men who smoke."

Smoking and Pregnancy. It appears that a pregnant woman who smokes gives her unborn child a smaller supply of oxygen, so that:

- 1) babies of smokers weigh less than 5 1/2 lbs. on the average (200 grams below normal).
- 2) babies of smokers grow and develop slower, both mentally and physically.
- 3) smokers have more miscarriages and stillborn deliveries.
- 4) as many as 14 percent of premature deliveries can be blamed on the mother's smoking.

Smoking and The Pill. Smoking and birth-control pills *don't* mix. Women who smoke while on estrogen-containing pills are 10 times as likely to have a heart attack as other women their age. Last year a smoking warning was added to the labeling of oral contraceptives. This is a serious threat to the health of women smokers.

What Happens If You Quit?

One important study covered by the report (Doll and Peto, 1976) showed sharp drops in the death rate for all respiratory cancers in those who had once smoked and then quit. After five to nine years, ex-smokers had a death rate only 3/8 (less than half) as high as those who continued to smoke. Those who had not smoked for more than 15 years had only 1/8 the death rate from pulmonary cancer that lifetime smokers had. Death rates from emphysema and chronic bronchitis—two other common smoking-induced killers—did not fall quite so rapidly until after ten years of abstinence. Then they showed the same large improvements.

The Critical Point for Smoking. Twenty years of smoking appears to be the point where the risk of lung cancer becomes critical. Most smokers start when they are between 15 and 20 years old. If they are to avoid high risks of respiratory cancer and other chronic pulmonary diseases, these people must quit smoking by the time they are 35 to 40. There is overwhelming evidence of the danger of smoking after the age of 40. Doctors are now being urged through the AMA to focus on this age group among their patients who smoke and try to impress upon them the fact that they still have a chance to give themselves years of life.

But that's only a chance. Don't gamble with your life. A lighted cigarette generates about 4000 different chemical compounds—most of which affect your body's chemistry, and thus your health, in some way. You know it's literally poison, so how can you keep smoking?

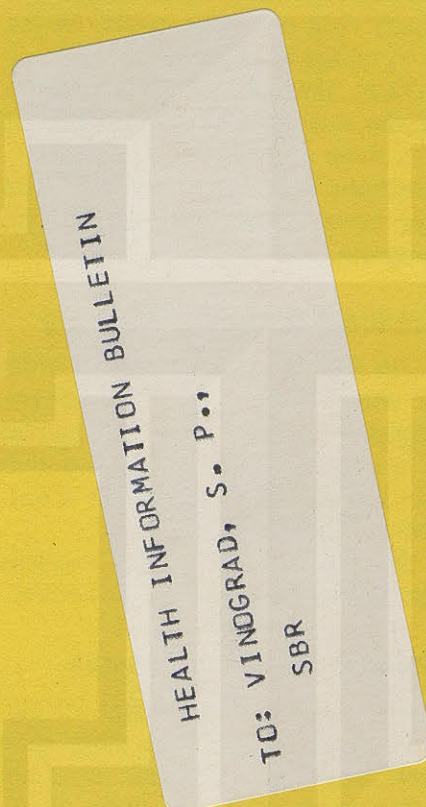
The trend to quit is building year by year. In this past year's Second Annual Great American Smoke-out, over 7-1/2 million people put away their cigarettes for a day—50% more people than had participated the year before. If you plan to live and be healthy, join the people who are cleaning up their act. If you need help, try the method suggested in NASA Health Bulletin No. 7. Quit saying you're going to quit. Start saving your breath, and just quit.

Each day figure up how much money you saved by not buying cigarettes. Start putting that money in a piggy bank to blow on something ridiculous at the end of the month.

If you've told your family, friends, co-workers what you're up to, you ought to be getting plenty of compliments from them for sticking to your program. If not, remind them to tell you how great you are.

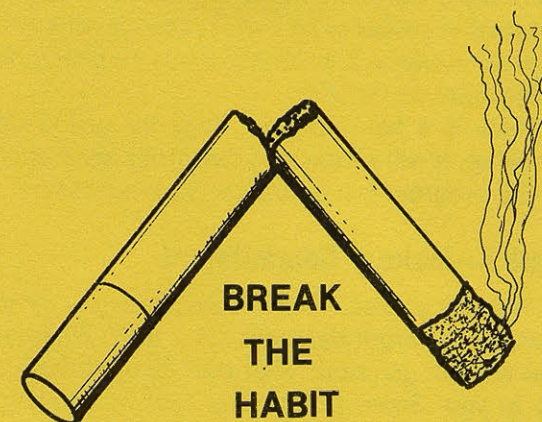
Part VIII—Enjoy Your Nonsmoker Status

Once you've quit, it's important to keep up a reward system so that you don't backslide. Take pleasure in saying, "No thank you, I don't smoke." Complain to a smoker about how obnoxious the habit is. Maintain your cigarette-money piggy bank for totally frivolous expenditures. Anytime you're tempted to smoke again, look at your old list of reasons for quitting. After a few months you won't need it anymore.



Health Bulletin No. 7

How to Quit Smoking



NASA
National Aeronautics and
Space Administration

Office of Occupational Medicine

Chances are that a lot of your friends who used to smoke no longer do. It's also likely that you more often find yourself to be the only smoker at a party. And in other people's homes ashtrays aren't so accessible anymore.

Nonsmokers are insisting on their right to breathe uncontaminated air and, as more people quit, social pressures against smoking grow stronger. A different kind of peer influence probably started you smoking many years ago and the new antismoking one can be an even more powerful motivation for quitting than knowledge of smoking's life threatening effects.

Some of the most successful methods for helping smokers quit involve applications of behavioral theory. This is because smoking is basically a learned behavior which has become habitual in response to certain associations and cues. Behavioral approaches focus on changing these habit patterns.

Here is a behavioral strategy for giving up smoking. It will be obvious that strict adherence to the program will guarantee your success.

Part I—Make a Commitment

Promise yourself that you will honestly try to quit. Set a target date and stick to it. Whether you want to go public with your commitment is up to you. Some people find that announcing their intention helps to strengthen their resolve. Others wage the campaign alone, postponing the congratulations from friends and relatives until they are successful.

To strengthen your commitment, it helps to make a list of all the reasons why you want to become a nonsmoker. You should have no trouble thinking of at least ten.

Part II—Establish Smoking Patterns

For the first three days continue smoking as usual. Each day keep a careful log of your smoking. Write down the time of day, the location, and your activity each time you smoke.

Keep a separate log of the time of day and of the symptoms each time you cough, clear your throat, hack or otherwise show a symptom of nose and throat irritation. On this same log list apparent peer disapprovals and situations in which you infringe on nonsmokers. Analyze your data for this three day period to identify patterns. Note each time or situation where you almost invariably light up—after meals, on the telephone, with coffee or cocktails, etc. These are your CRITICAL times, the ones where the responses to the cues are so automatic that you don't even think about them.

Continue to keep both logs throughout the following days while you are carrying out the rest of the program.

Part III—Gradually Decrease Smoking

On the fourth day select a number of cigarettes to be smoked that day. The number should be considerably lower than your normal amount. For example, if your log shows that you smoke an average of 30 cigarettes a day, start by limiting yourself to 20.

From the fifth day forward, smoke one less cigarette each day than you did the day before.

Part IV—Breakup Smoking Patterns

You are going to have to eliminate 10 cigarettes on the fourth day and one more each day thereafter. Since the automatic ones are the hardest to give up, start with those. If you find that you almost always light up immediately following eating or drinking, you must now wait at least 30 minutes after taking any food or drink. Place your cigarettes across the room so you can't reach them when you pick up the telephone. Empty and wash the ashtray in your car and enforce a no smoking rule there. Be imaginative and make the automatic responses difficult to accomplish.

Each day, review your smoking log. New patterns may emerge which you will have to combat.

Part V—Create an Aversion to Smoking

In order to help extinguish the smoking urges, wear a loose fitting rubber band on your wrist. As each urge to smoke occurs, give yourself a good pop with the rubber band. This will decrease the frequency of the urges.

For the especially critical times, the rubber band may not be strong enough medicine. For the situations when the urge to smoke is almost overwhelming, the following prescription may be necessary:

Fill a small bottle or jar with old cigarette butts. When these very powerful urges get too strong, uncap the bottle and take a good whiff of all that nastiness. This is very aversive and should help a lot in these compelling situations.

Should you start to cheat on the program, a little extra punishment will be required. Each day you slip and smoke more than your allotted quota, send \$10 to the political or social cause you most strongly oppose.

Part VI—Substitute Other Behaviors

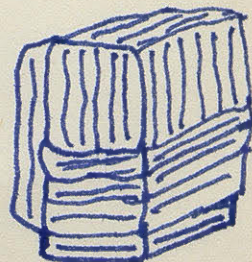
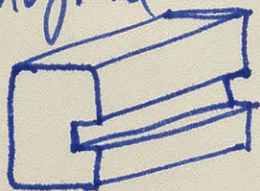
Do something else during your critical smoking times. Have breakfast, instead of a cigarette, with your morning coffee. For the anxiety cigarettes, try deep muscle relaxation (see Bulletin No. 3). After meals, take a walk or brush your teeth. Doodling, chewing gum and isometric exercises are good substitutes for those cigarettes smoked at your desk.

Part VII—Reward Yourself

On the evening of each day during which you have stuck to the routine, give yourself a little goodie of some sort—an extra dessert or whatever. You've earned it.

Routinely review the symptom log. Even before you have completely quit smoking you will see a substantial reduction in your coughing and hacking symptoms. You will also notice that people who do not smoke are more friendly.

To On Vinograd

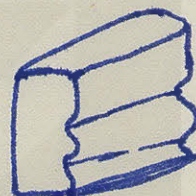


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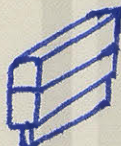
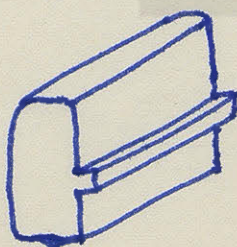
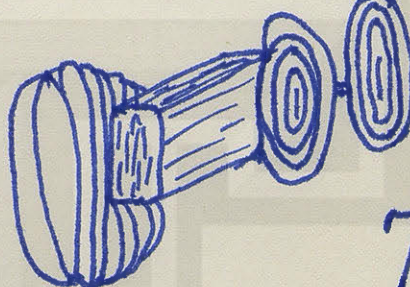
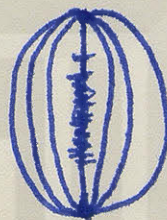
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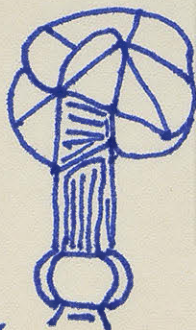
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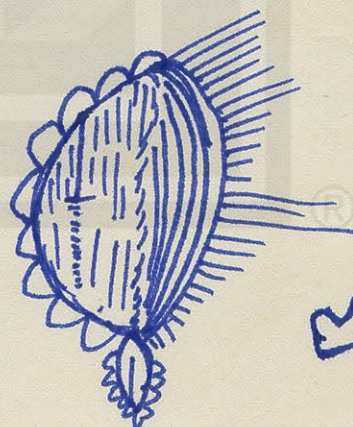
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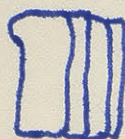
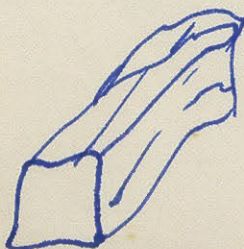
Friday Farms



COSMOS



3



Dick Young

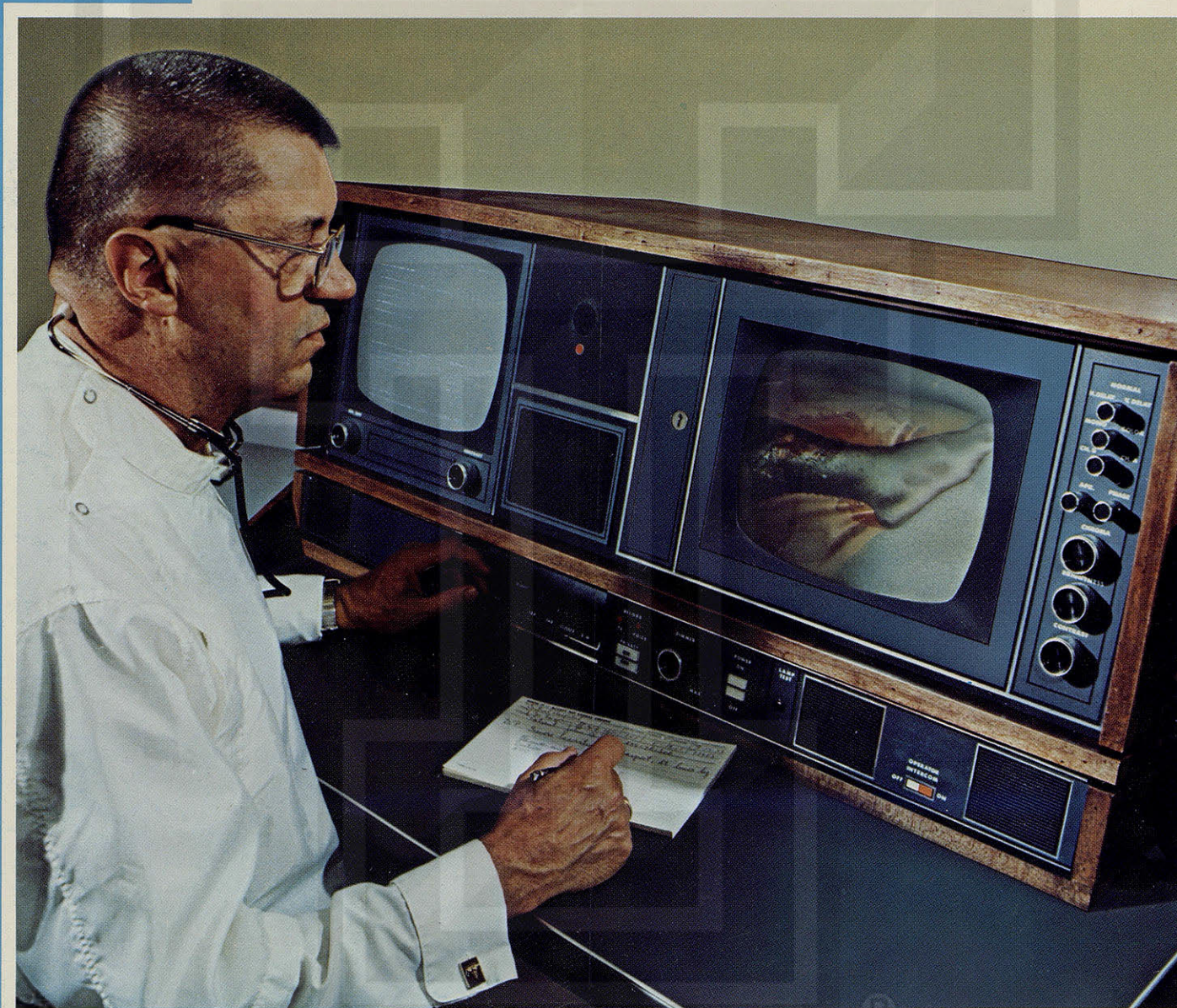
WHITE COLLAR PAY TABLE

Federal Civilian Salaries Effective Oct. 1, 1976

	1	2	3	4	5	6	7	8	9	10
GS-1	\$5,810	\$6,004	\$6,198	\$6,392	\$6,586	\$6,780	\$6,974	\$7,168	\$7,362	\$7,556
2	6,572	6,791	7,010	7,229	7,448	7,667	7,886	8,105	8,324	8,543
3	7,408	7,655	7,902	8,149	8,396	8,643	8,890	9,137	9,384	9,631
4	8,316	8,593	8,870	9,147	9,424	9,701	9,978	10,255	10,532	10,809
5	9,303	9,613	9,923	10,233	10,543	10,853	11,163	11,473	11,783	12,093
6	10,370	10,716	11,062	11,408	11,754	12,100	12,446	12,792	13,138	13,484
7	11,523	11,907	12,291	12,675	13,059	13,443	13,827	14,211	14,595	14,979
8	12,763	13,188	13,613	14,038	14,463	14,888	15,313	15,738	16,163	16,588
9	14,097	14,567	15,037	15,507	15,977	16,447	16,917	17,387	17,857	18,327
10	15,524	16,041	16,558	17,075	17,592	18,109	18,626	19,143	19,660	20,177
11	17,056	17,625	18,194	18,763	19,332	19,901	20,470	21,039	21,608	22,177
12	20,442	21,123	21,804	22,485	23,166	23,847	24,528	25,209	25,890	26,571
13	24,308	25,118	25,928	26,738	27,548	28,358	29,168	29,978	30,788	31,598
14	28,725	29,683	30,641	31,599	32,557	33,515	34,473	35,431	36,389	37,347
15	33,789	34,915	36,041	37,167	38,293	39,419	40,545*	41,671*	42,797*	43,923*
16	39,629*	40,950*	42,271*	43,592*	44,913*	46,234*	47,555*	48,876*	50,197*	
17	46,423*	47,970*	49,517*	51,064*	52,611*					
18	54,410*									

*The rate of basic pay for employees at these rates would be limited by section 5308 of title 5 of the United States Code to the rate for level V of the Executive Schedule which, under this adjustment, would become \$39,600.

REMOTE AREA HEALTH CARE SYSTEMS



Lockheed Missiles & Space Company, Inc.
Sunnyvale, California

The Remote Area Health Care Systems Provide:

- Extension of physician's and specialist's skills to remote areas.
- Delivery of health services by physician assistants under the direction of a physician.
- Shorter response time for routine and emergency care.
- Preventive health care.
- Continuing health and medical education.
- Increased effectiveness of existing facilities and personnel.
- A point of entry for additional treatment as required.
- Computerized health/medical records and real-time paramedic aids.
- Retrieval of medical records at patient contact point.
- An expandable and reproducible health care delivery capability.



Remote Area Health Care Systems

The System Concept

THE PHYSICIAN'S SKILLS and the facilities of the modern hospital can be made available to many patients who are remotely located and widely dispersed. A general practitioner, supported by specialists as required, can extend medical services through physician's assistants, nurses, and other medical personnel throughout a large area currently underserved, or unserved.

The system makes highly efficient use of the physician's time in relation to a widely dispersed community of patients. Yet the important physician/patient direct relationship is preserved despite the physical separation.

The System Techniques

THE SYSTEM results from nearly a decade of medical and engineering development sponsored by the National Aeronautics and Space Administration (NASA), and implemented by a team of physicians, scientists, engineers, and supporting subcontractors, managed by Lockheed.

In its original conception, the project was specifically oriented to astronaut health research and health care in space.* It included monitoring of medical and behavioral conditions, diagnostic techniques based on remotely accumulated data, and the prescription of corrective therapy and medication. The prescription function is implemented by a NASA ground control center physician in his telemedical communication with nonmedical personnel in the space vehicle. Its successful space application development has convinced NASA and the Department of Health, Education, and Welfare that its use for health care delivery in remote areas can be equally

*This is the Integrated Medical and Behavioral Laboratory Measurement System (IMBLMS) project.

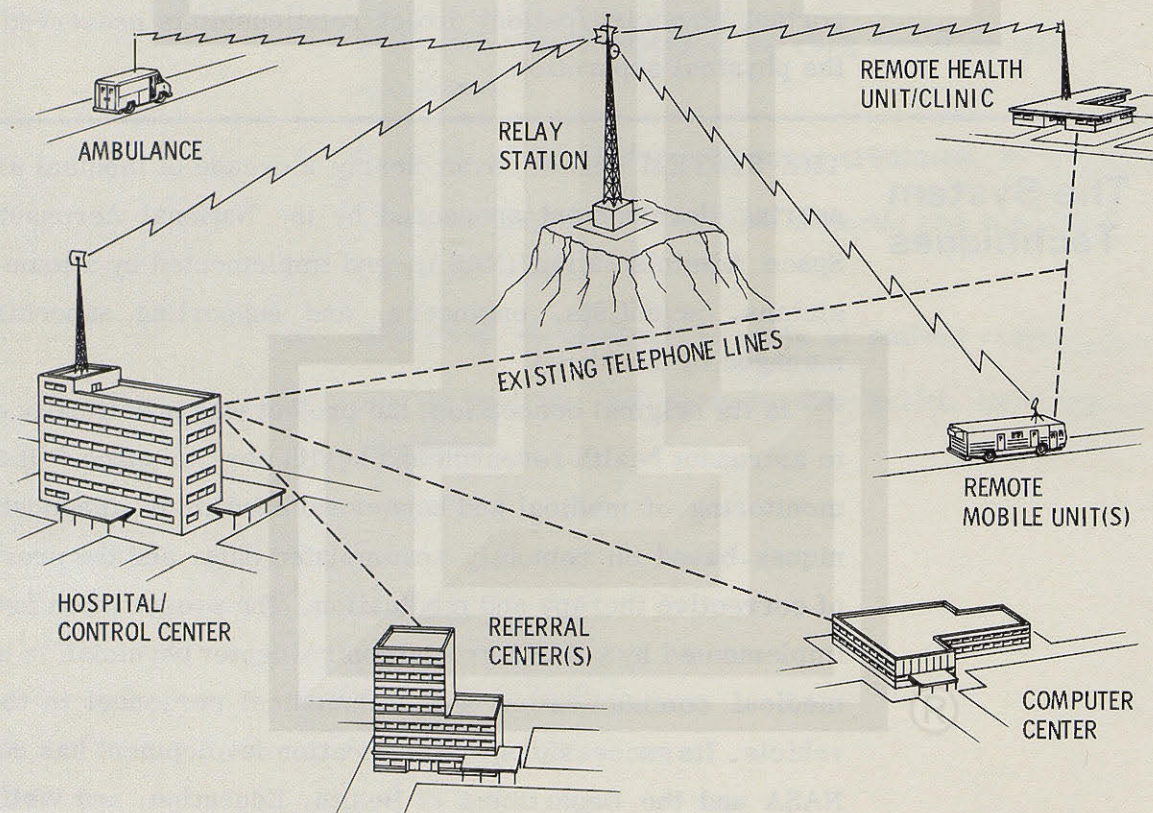
successful. As a consequence, Lockheed is presently under NASA contract to design, build, and support the system on the Papago Indian Reservation in southwest Arizona, to which the Indian Health Service administers health care.

The System Elements

THE SYSTEM makes a physician available to distantly located patients by means of a television/radio communication network. The dedicated television link brings physician and patient face-to-face, and the high-frequency radio link makes audio communication and data transmission convenient and private.

Remote units, both fixed and mobile, make use of paramedical personnel* under supervision of a physician at the Hospital/Control

*Related terms: physician's assistant, community health medic, nurse practitioner, paramedic, etc.



Typical Remote Area Health Care System Configuration

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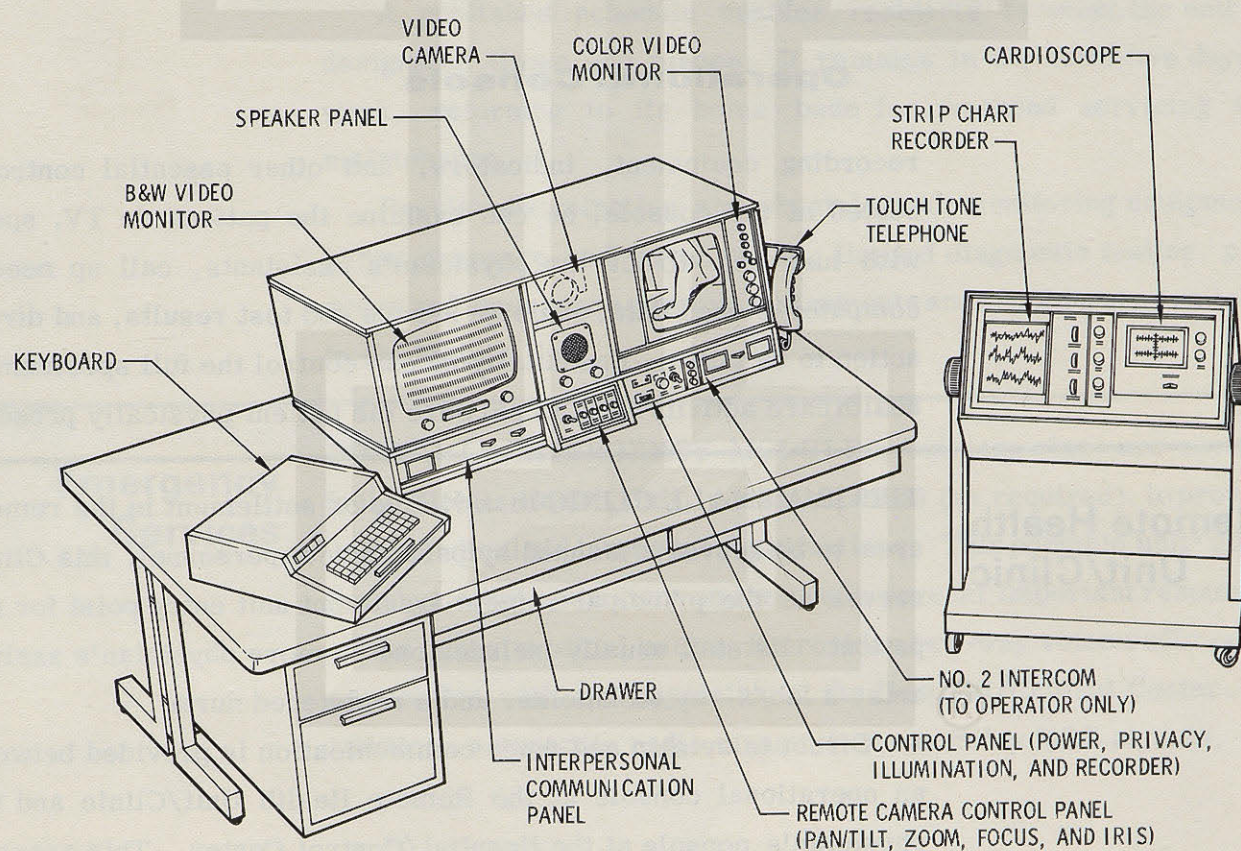
Center. In addition, a computer stores pertinent patient data and allows immediate retrieval by authorized personnel from any one of several locations.

Each application of the health care delivery system will have its own unique demands and solutions. As a result of these different local requirements, it is improbable that any two delivery systems will be identical. However, each system will have components common to other applications. These common elements include the following:

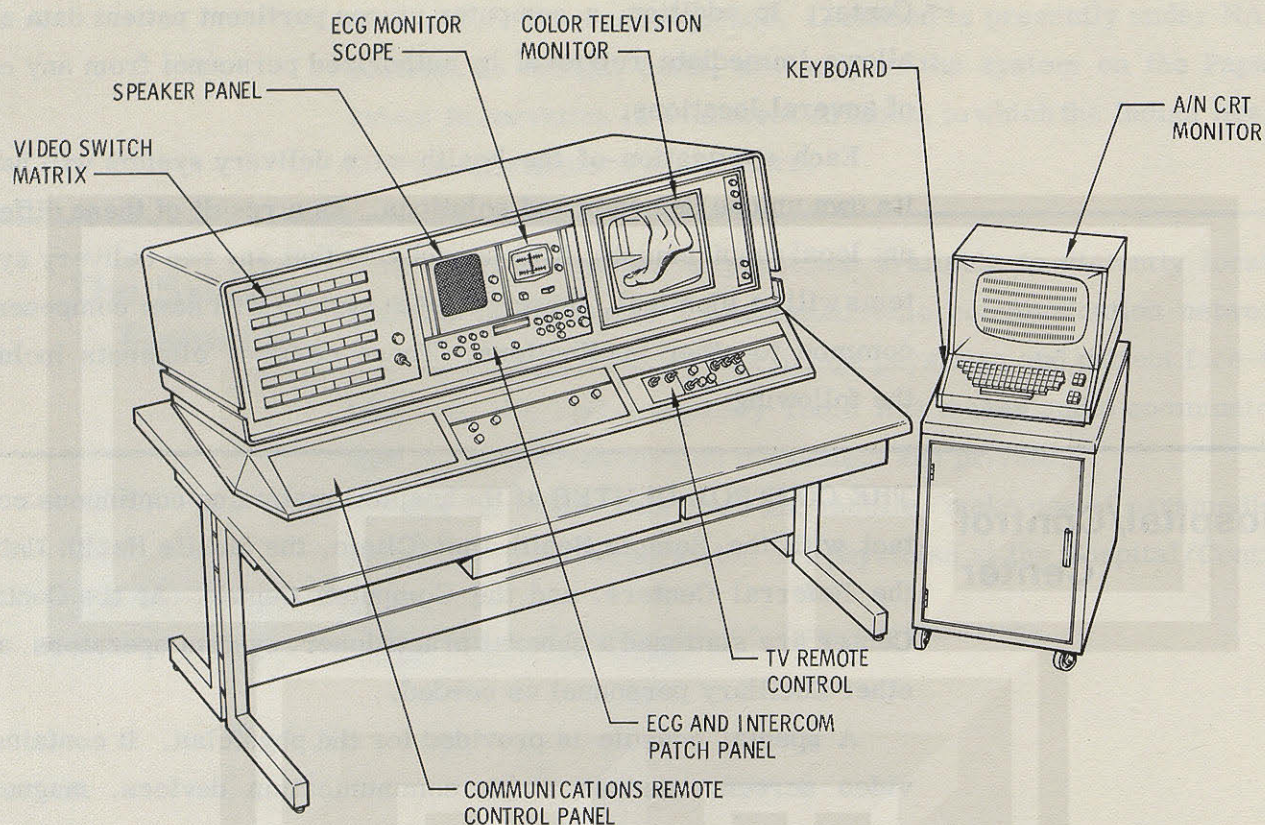
Hospital/Control Center

THE CONTROL CENTER at the hospital maintains continuous contact with the Remote Health Unit/Clinic, the Mobile Health Units, the Referral Centers, and the Computer Center. At the Control Center are stationed a general practitioner, system operators, and other ancillary personnel as needed.

A special console is provided for the physician. It contains a video screen, various audio communication devices, magnetic



Physician's Console



Operational Console

recording equipment, indicators, and other essential controls. Seated at the console, he can examine the patient via TV, speak with him and direct the physician's assistants, call up needed computer-stored data, examine x-rays and test results, and direct action to be taken. Essentially he can control the full spectrum of healthcare activity as he would were the patient physically present.

Remote Health Unit/Clinic

THIS IS A SMALL CLINIC in a village or settlement in the remote area to be served. Manned by paramedical personnel, this Clinic serves as the principal remote treatment unit entry point for the patient. Its staff usually includes one or more physician's assistants, a lab/x-ray technician, and a registered nurse.

Direct television and voice communication is provided between an operational console at the Remote Health Unit/Clinic and the physician's console at the Hospital/Control Center. This assures full direction and control by the physician whenever needed.

Equipment at the Remote Clinic includes such items as physio-

logical monitoring devices, x-ray equipment, laboratory test facilities for medical examinations and diagnostic procedures, surgical instruments, endoscopic viewing equipment, etc. A small pharmacy section is provided, and emergency space away from normal patient traffic is available for seriously ill or injured patients awaiting transportation to the hospital.

A system operator's console is also provided for dispatching, communication system monitoring, video, voice, and data recording, and other control functions.

Mobile Health Unit

THE MOBILE HEALTH UNIT is a scaled-down version of the Remote Clinic. Virtually all services offered by the Clinic are available from this specially equipped van operating on a regularly scheduled itinerary throughout the territory covered by the system. Operated by a physician's assistant, a lab/x-ray technician, and ancillary support personnel, the Mobile Unit carries video/audio equipment to allow communication with the physician at the Hospital/Control Center.

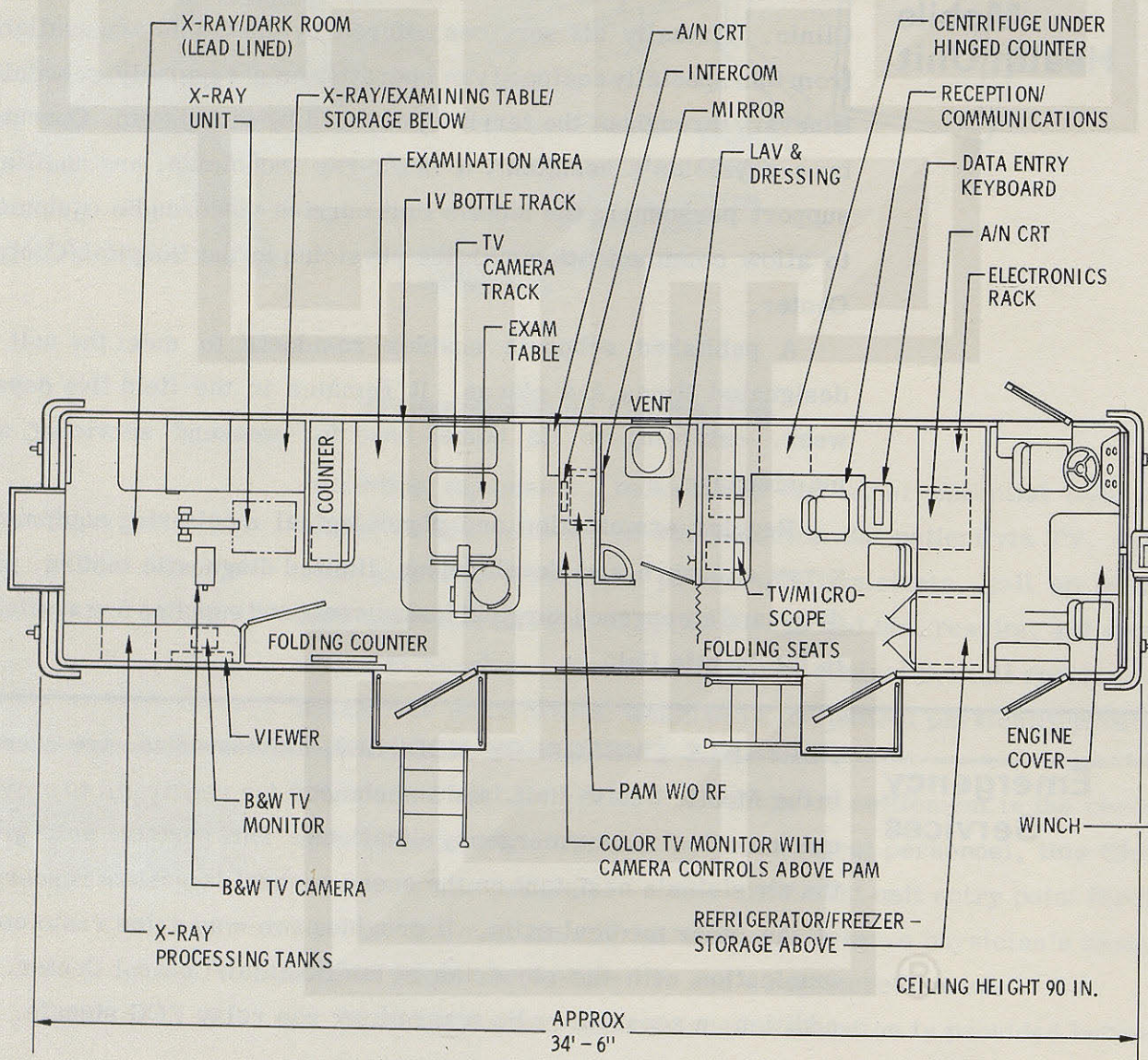
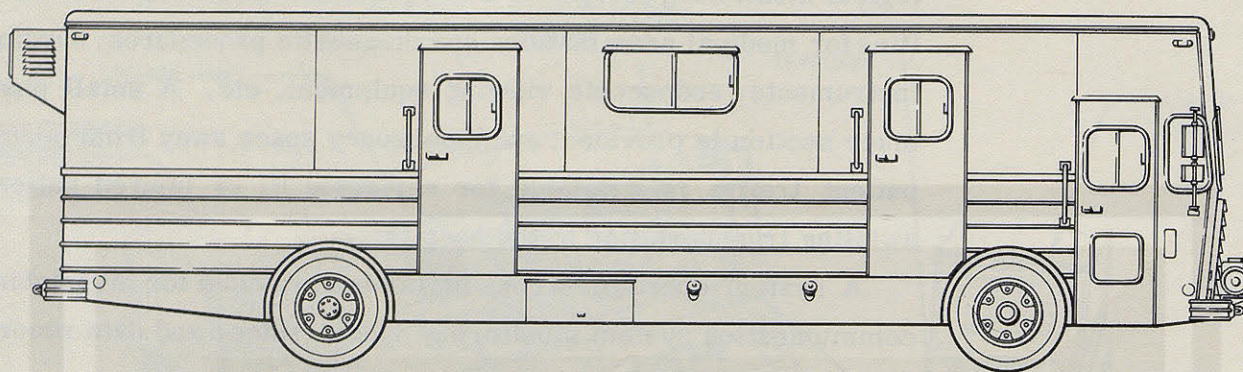
A published schedule enables residents to meet the unit at designated times and places. It remains in the field five days a week, returning to its home-base for weekend servicing and maintenance.

Regular examination and physiological monitoring equipment, x-ray exposure and development, limited diagnostic testing, plus drugs and emergency surgical instruments and supplies are available in the Mobile Unit.

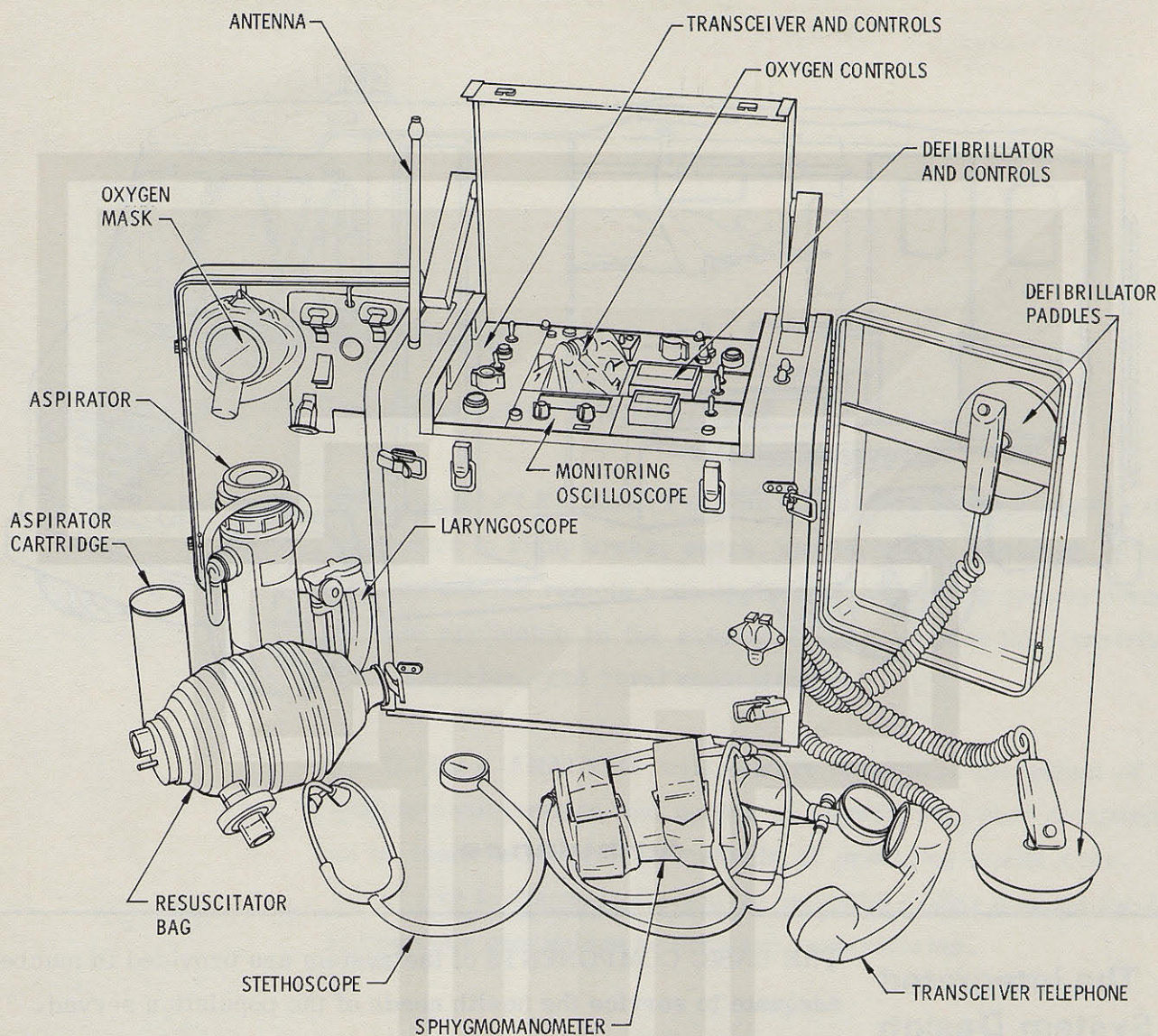
Emergency Services

PORTABLE EMERGENCY MODULES, suitcase size, are carried in the Mobile Health Unit, and ambulances (as required), to provide quick medical aid in emergency situations. This portable unit* gives the physician's assistant on the scene several important resources of the other medical units. It provides two-way voice radio communication with the physician at the Hospital/Control Center. In addition, a separate radio transmitter can relay ECG signals. An

*Illustration of portable module courtesy of SCI Systems, Inc.



Mobile Health Unit

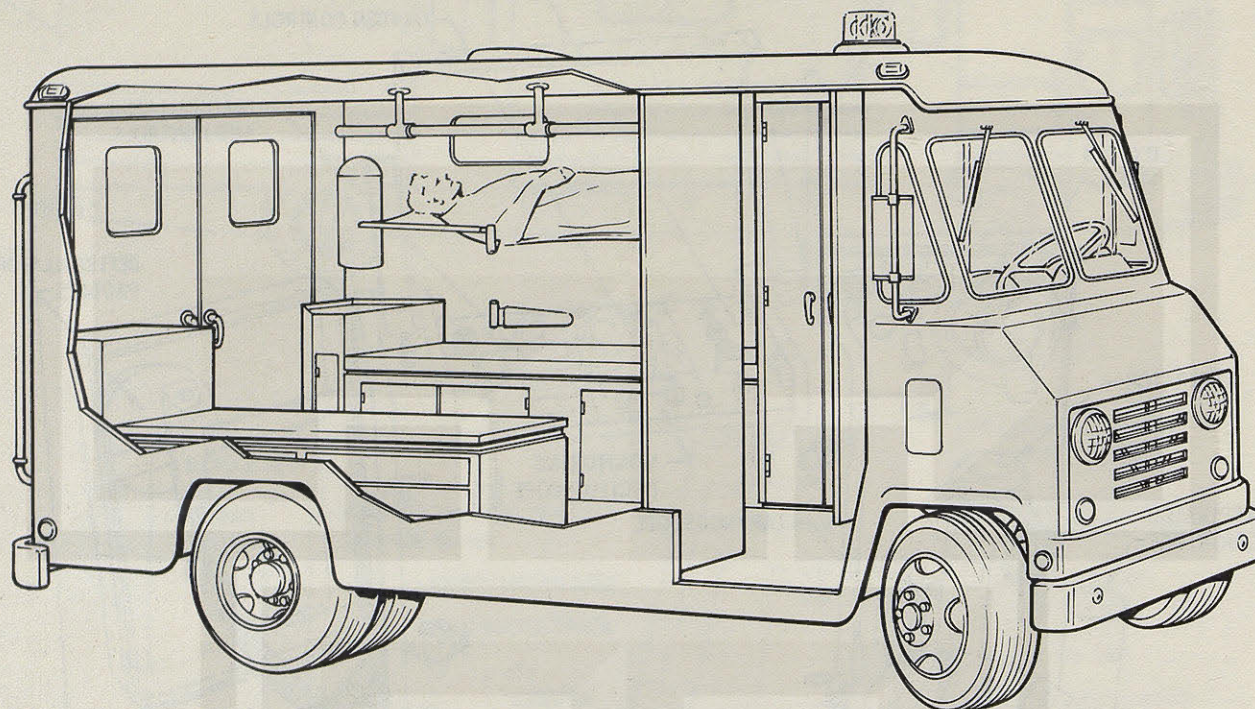


Emergency Module

acoustic coupler permits electrocardiogram transmission via standard telephone lines.

Other equipment in the emergency module includes a defibrillator, oxygen supply, a respirator resuscitator and aspirator, and other standard medical instruments. Supplies consist of tourniquets, bandages, dressings, and emergency drugs and medicines. The unit carries its own power supply.

Emergency services are dispatched from the Hospital/Control Center. Ambulances, when needed, further extend the outreach of the system.



Ambulance

The Integrated System Design

THE BASIC COMPONENTS of the system are provided in numbers adequate to service the health needs of the population served. The unique use of mobile facilities and complete communication networks to tie all parts of the system together enables the system to provide more efficient service than is possible by fragmented and isolated service units. Each element in the net can call upon other facilities and personnel to augment its own capabilities as required. Some redundancy is required to provide emergency backup for critical data links or processors; this can be achieved at much less cost than complete duplication of facilities at all locations served by the extended health care system.

Each location will require its own combination of equipment, facilities, personnel, and operational techniques. A system may range from the basic Control Center/Clinic link to the full base-line configuration — any multiplicity of its elements or a network of various or other configurations.

Do You Need to Extend Your Health Care Delivery Capability?

THE BASIC FLEXIBILITY of this health care concept enables it to be applied to many areas, users, and locations. Although we have emphasized the remote area application here, this system concept is also applicable to the extension of health care for a variety of city, suburban, and rural requirements.

AN INITIAL ANALYSIS will readily determine the extent of the system configuration and enable an approximate cost comparison to be made with current methods of providing health care. We would like to discuss with you the potential of this concept for fulfilling your own unique health care requirements.

Lockheed Biotechnology Marketing

Organization 15-50 Building 151

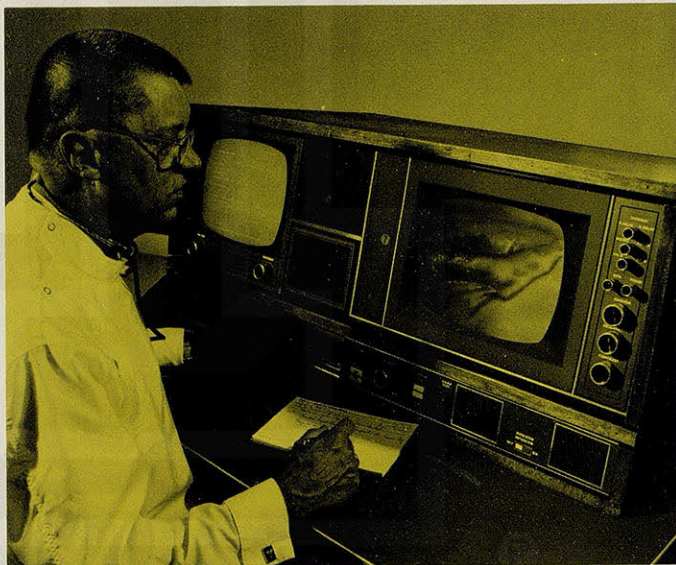
Post Office Box 504

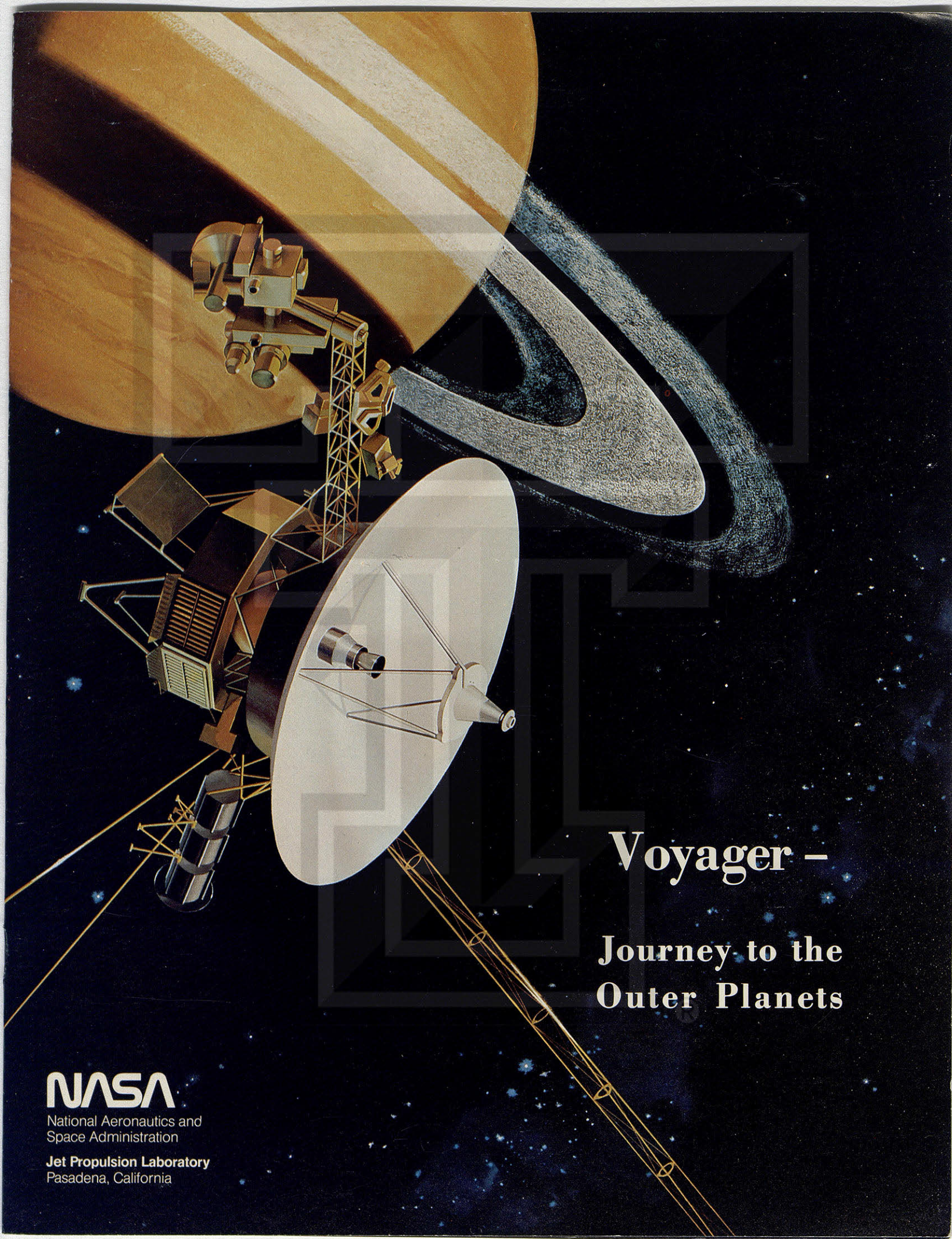
Sunnyvale, California 94088

Telephone (408) 743-1180



Remote Area Health Care Systems



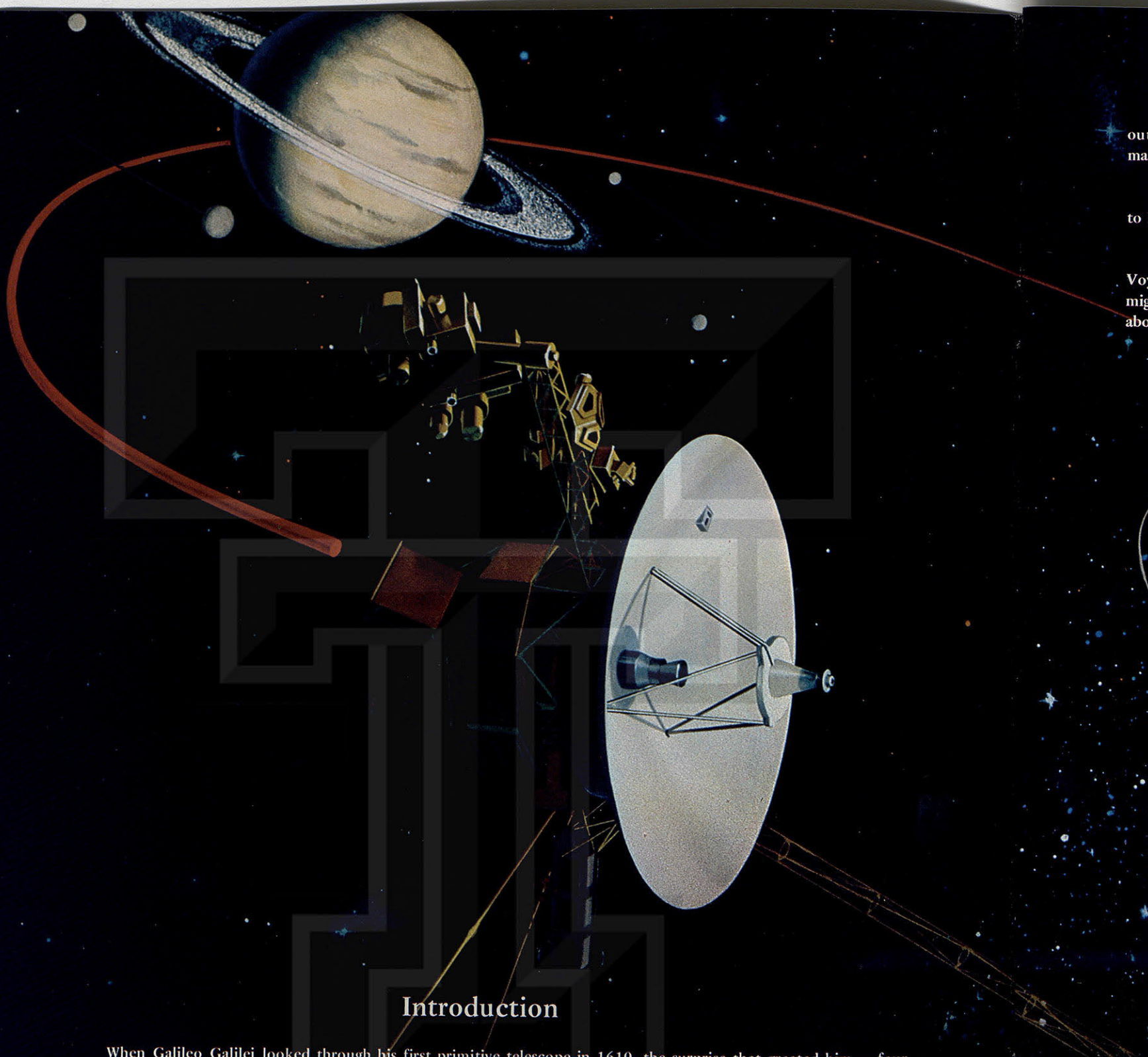


Voyager – Journey to the Outer Planets

NASA

National Aeronautics and
Space Administration

Jet Propulsion Laboratory
Pasadena, California



Introduction

When Galileo Galilei looked through his first primitive telescope in 1610, the surprise that greeted him — four hitherto unknown moons orbiting Jupiter — rocked the world and started a new revolution in scientific inquiry that continues today.

Men had wondered for millenia about the stars that lit the night sky. They puzzled over a few objects, pinpoints of light that didn't obey the rules, that meandered among the fixed stars, refusing to settle down in regular orbits. Men named them "planets" or "wanderers." Violent arguments — even inquisitions — raged over the question, what were these wandering stars?

But each new century found men taking small, painful steps along the road called technology. New instruments were invented, first to measure the positions of the wanderers; then, at last, to magnify their images. Man realized the wanderers were other worlds, perhaps like his own.

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Once man learned to break free of Earth's gravity and the murky atmosphere that clouded his vision, he reached out to those wandering worlds. He photographed them from close range, studied their atmospheres and surface markings and chemistry, probed beneath their skins so he might understand what went on deep within.

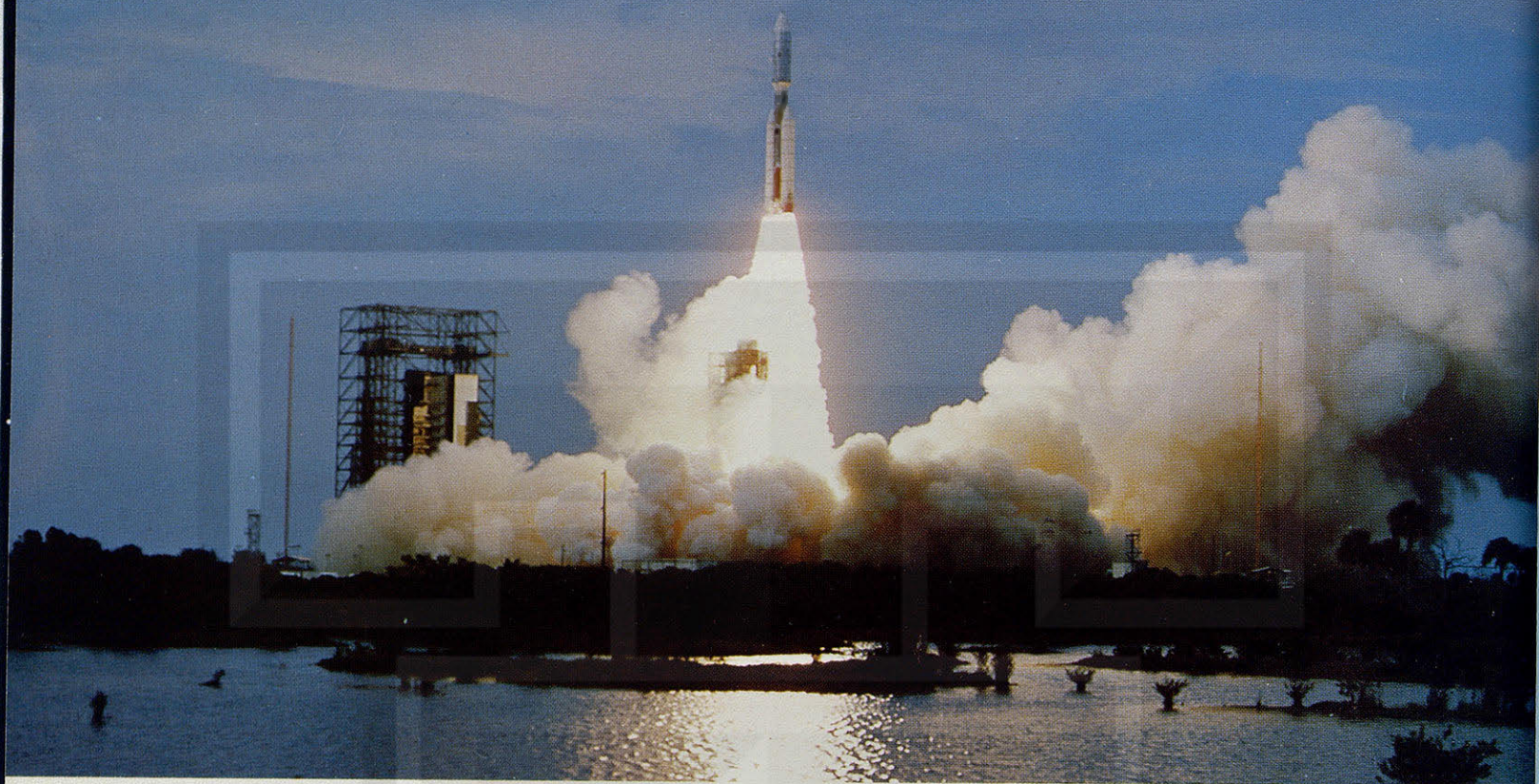
As he explored, man came to understand that those other worlds relate to his home planet. They provided clues to Earth's origin and distant history, clues to how man might manage his home planet in the future.

Now one of the most exciting of those voyages to other planets — by two advanced Mariner-class spacecraft — the Voyager Project — will examine Galileo's Jovian moons in ways he couldn't have dreamed possible and will observe mighty Jupiter from close range. Then, they will probe even farther to study yet another object that Galileo wondered about — the ringed planet Saturn and its satellites.

Jupiter is so large that scientists sometimes regard the solar system as a two-body group — the Sun and Jupiter. Jupiter's massive gravitational attraction tugs at every other planet and wrenches comets from their orbits. Jupiter resembles a "mini-solar system," with its four "Galilean" satellites, each varying in physical characteristics much as planets vary with distance from the Sun.

Saturn is unique in the solar system: its density is the lowest of the planets, less than that of water; until recently, it was believed to be the only planet encircled by a system of rings — presumably the remnants from the formation of its satellite system. These rings make Saturn a never-ending source of wonder and delight to telescopic viewers.

Four of Jupiter's satellites and one of Saturn's resemble the four inner planets in size and are of such scientific interest that they are worthy of detailed exploration on their own merits.



Dawn of the Mission

As early as August 20, 1977, soon after the Sun blazes out of the Atlantic Ocean off Florida's space coast, man-made fire and thunder will rattle the palmetto scrub as the first of two Voyager spacecraft rides its Titan-Centaur launch vehicle on the first leg of a long journey to Jupiter, Saturn, and beyond, a voyage to the outer planets.

The National Aeronautics and Space Administration will send the two spacecraft to advance our knowledge of the outer solar system — Jupiter, Saturn, their satellites, and perhaps even the farther reaches of space.

The spacecraft will be launched in the late summer of 1977, and will fly past Jupiter in 1979. Using the big planet's immense gravity to boost them on their way, the Voyagers will be accelerated toward Saturn, reaching the ringed planet in 1980 and 1981. There is also the possibility that one of the spacecraft will visit Uranus in 1986.

And then what, beyond Saturn? Both spacecraft will continue farther from the Sun, probing, studying and searching as they go. Far from Earth they will penetrate into galactic space, beyond the influence of the Sun, where they will cruise for eternity.

The Mission Plan

Twelve days after the first launch, the early morning scenario will be repeated. This Voyager, however, will spring after its earlier companion until it overtakes and passes it. This second-launched craft, Voyager 1, will arrive at Jupiter four months before its mate, and at Saturn will be nine months ahead. The slower, first-launched craft, Voyager 2, may be targeted on past Saturn to explore Uranus, if its predecessor Voyager 1 has performed well.

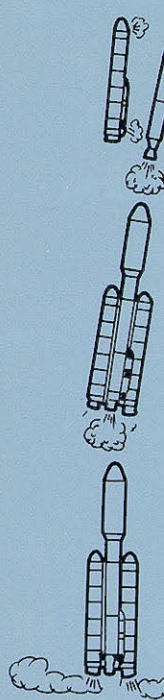
Following in the footsteps of the earlier reconnaissance of the Pioneer 10 and 11 missions, each Voyager spacecraft will conduct 11 separate science investigations, performing for their human masters a thorough physical examination of two planets, at least 11 satellites, the rings of Saturn, and interplanetary space.

The Voyagers will begin their scientific studies soon after launch. Both spacecraft will aim their instruments back toward the rapidly diminishing Earth; Voyager 1 may pass over the Moon's north pole and get a quick glimpse of our own recently visited satellite.

As mariners have done over the centuries since they took to the sea, these newest will sample the wind — this time the solar wind that streams a supersonic gale of charged particles from the Sun. Instruments will sample the solar wind constantly and about every 50 million miles, each Voyager will spin slowly to scan the sky in all directions.

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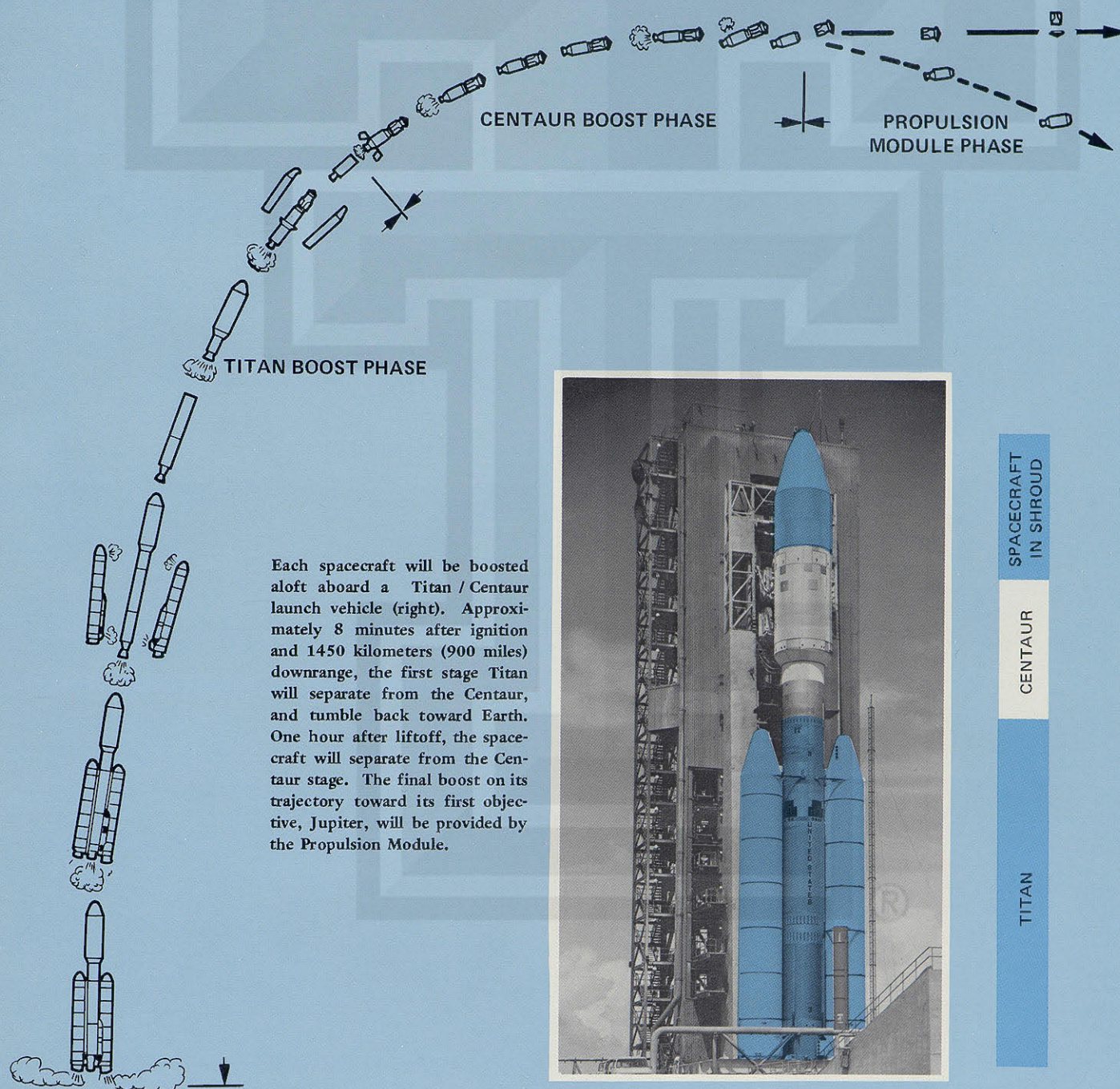


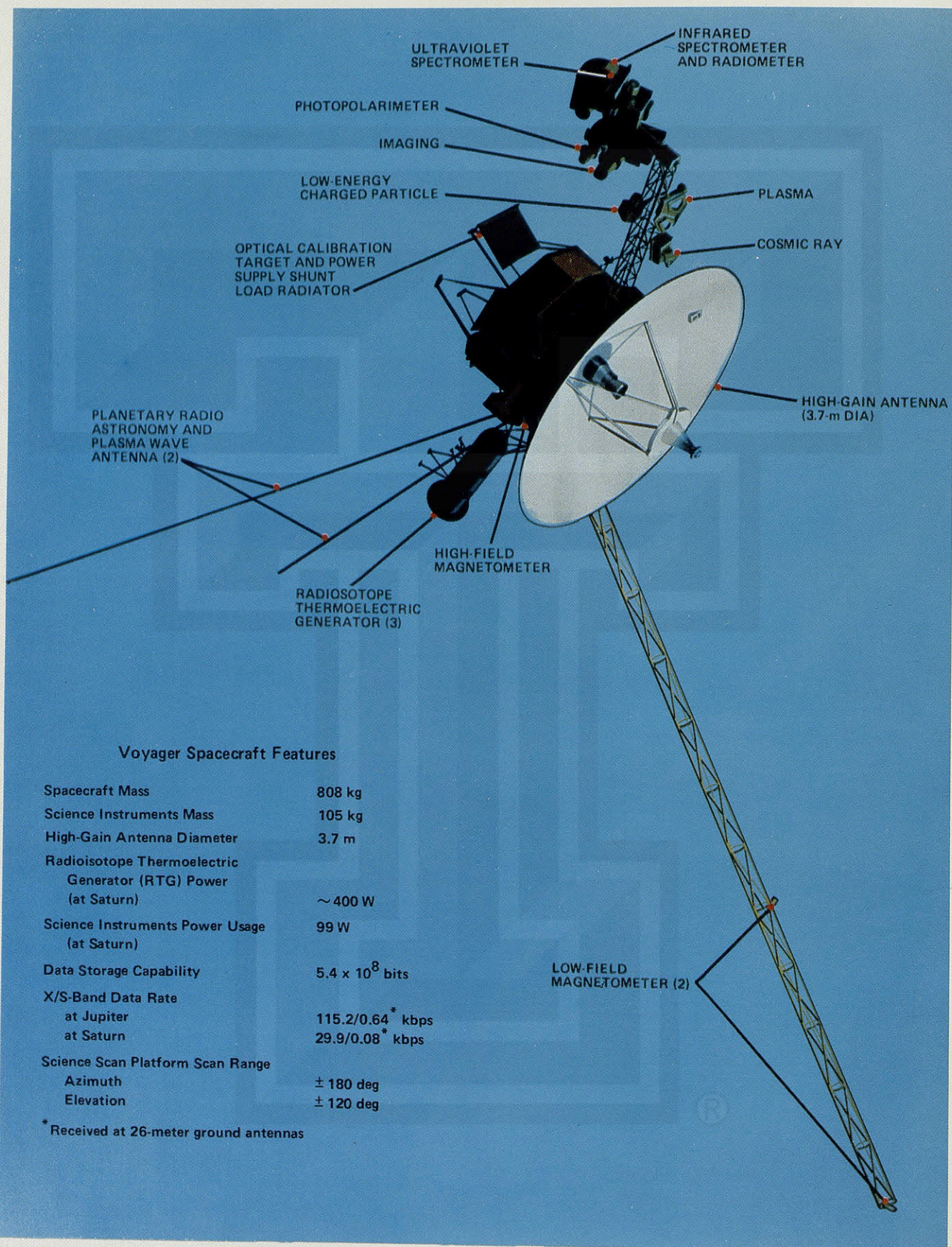
And, like sailors, the Voyagers will thread their way past interplanetary reefs and shoals, as they cross the asteroid belt, a wide band of rock and space debris between the orbits of Mars and Jupiter.

Each Voyager will pursue its own unique trajectory. Flight planners ran computer simulations for many possible flight paths to determine those that would return the maximum possible knowledge — a closer look than the collective

efforts of centuries. Both Voyagers will fly past the equatorial regions of Jupiter, and one will pass beneath the south pole of Saturn.

An option exists: if everything has gone well at Saturn and the second spacecraft is still healthy, the slower Voyager 2 may fly on to Uranus, a planet only discovered in 1781 and never visited by spacecraft.





Voyager Spacecraft Features

Spacecraft Mass	808 kg
Science Instruments Mass	105 kg
High-Gain Antenna Diameter	3.7 m
Radioisotope Thermoelectric Generator (RTG) Power (at Saturn)	~ 400 W
Science Instruments Power Usage (at Saturn)	99 W
Data Storage Capability	5.4×10^8 bits
X/S-Band Data Rate	
at Jupiter	115.2/0.64* kbps
at Saturn	29.9/0.08* kbps
Science Scan Platform Scan Range	
Azimuth	± 180 deg
Elevation	± 120 deg

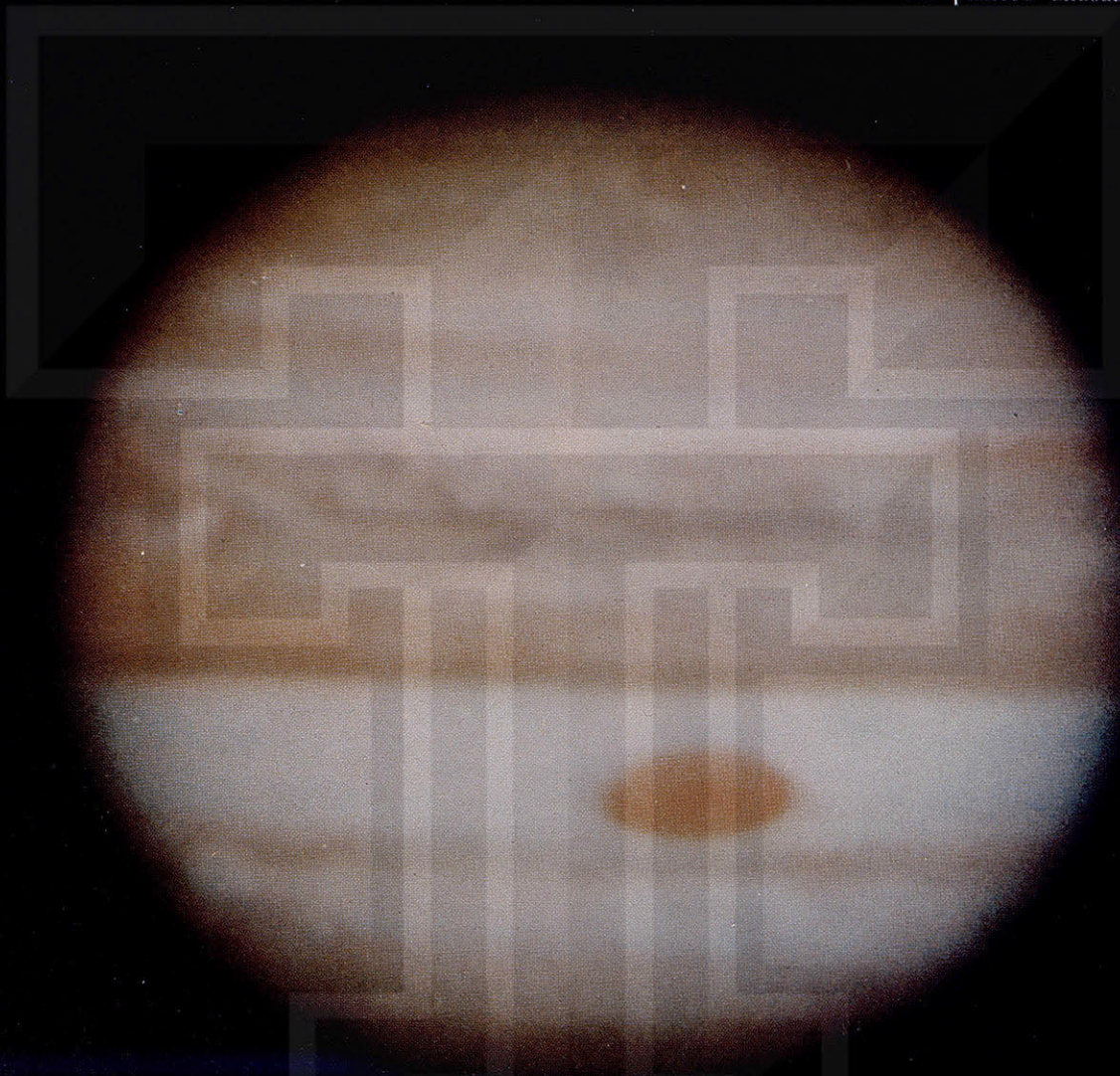
* Received at 26-meter ground antennas

Eight Months in the Jovian System

More than 16 months after launch — about December 15, 1978 — the speedier Voyager 1 will be transmitting photos of the brilliantly colored disk of Jupiter which

of light for more than 40 minutes to reach scientists at the Jet Propulsion Laboratory in California.

Ultraviolet, infrared and polarimetric observations of Jupiter's visible disk will shed more light on the planet's unusual structure



will match the best resolution now available with Earth-based cameras.

At this point, eighty million kilometers from Jupiter, Voyager 1 will swivel its scan platform to allow the narrow-angle television camera to begin its "observatory phase," 80 days before closest approach.

The narrow-angle camera will take hundreds of color pictures of Jupiter's visible disk, of the bright red and yellow bands, and of boiling storms like the Great Red Spot, as the planet revolves before the camera once each ten hours. The pictures will be recorded on Voyager 1's tape recorder and played back to Earth daily, across distances so great that the radio signals will travel at the speed

and composition. The radio astronomy experiment will sense the presence of Jupiter and the radio bursts that appear to emit as much energy as several nuclear bombs. Charged-particle sensors — from the plasma detector at the low end of the energy spectrum to the cosmic ray counter at the high-energy end — should still be observing solar-wind phenomena although there will be occasional bursts of energetic particles from Jupiter.

Voyager 1 will cruise on, drawing ever nearer its growing target, until in early February 1979, it will be 30 million kilometers distant with 30 days to go before encounter (closest approach). By now Jupiter will loom

two and a half times larger in Voyager 1's eyes than it appeared in December. All activities will sharply increase; scientists will begin to select atmospheric features of special interest, such as the Great Red Spot and other storms for close-up observation nearer the planet. Jupiter's satellites will begin to come within reach of the spacecraft's television eyes now. There are 13 or 14 known Jovian satellites; of these, four are comparable in size to our Moon and two of these are larger than Mercury; at least another four orbit Jupiter "in the wrong direction," in what astronomers call retrograde orbits. One of the biggest satellites, Io, has an effect on those great Jovian radio bursts which Voyager will listen to and report on.

Still the planetary voyager will sail on. Eight days before closest approach, Jupiter will be so near that the narrow-angle camera can no longer effectively cover the entire disk; the wide-angle camera will assume that chore while the other instrument looks at selected phenomena. Spectrometers will scan the atmosphere and the cloud tops to help determine the composition and nature of the brilliant cloud bands.

1979: The First Encounter

Near-encounter will occur during the first days of March 1979. By now, high-energy radiation in Jupiter's magnetosphere will be bombarding the spacecraft and its intricate electronics.

Activity on board the Voyager and back at Earth will reach a peak. Shortly before Voyager 1's closest approach to Jupiter — early on March 5, 1979 — the spacecraft will pass tiny Amalthea, innermost of Jupiter's satellites, and will photograph it from a distance of 415,000 kilometers. The pictures that flash toward Earth will give scientists their first-ever close look at Amalthea.

Voyager 1 will whip by Jupiter about 280,000 kilometers (a distance equal to 4 Jupiter radii) from the visible surface of the planet. Now the radiation bombardment will reach its peak, but Voyager 1 will bore ahead. Then . . . nothing. No word from the Voyager for almost two hours as it slips behind Jupiter. Its computers will direct the flight, the data collection by its instruments, and



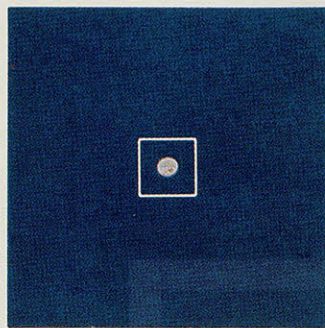
Voyager will scrutinize the giant planet Jupiter and five of its 13 or 14 known satellites.

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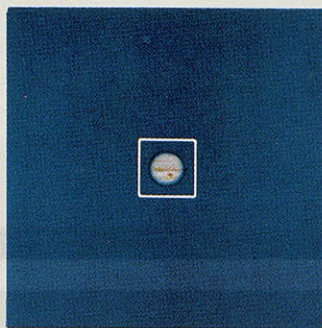
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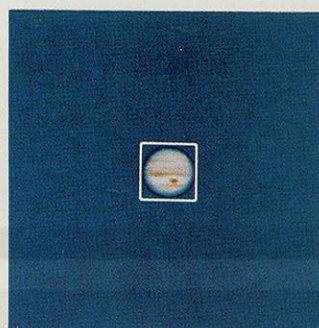
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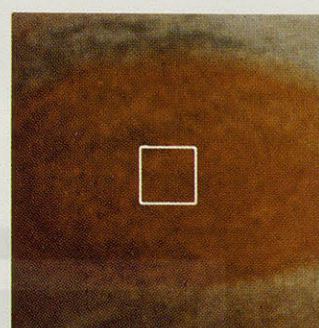
December 1978
Encounter - 80 days



February 1979
Encounter - 29 days

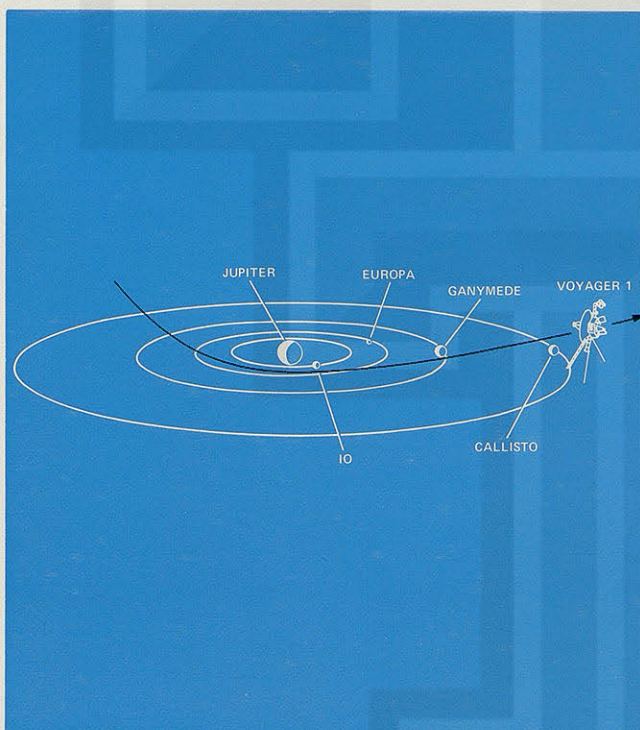


February 1979
Encounter - 18 days



March 1979
Encounter - 7 hours

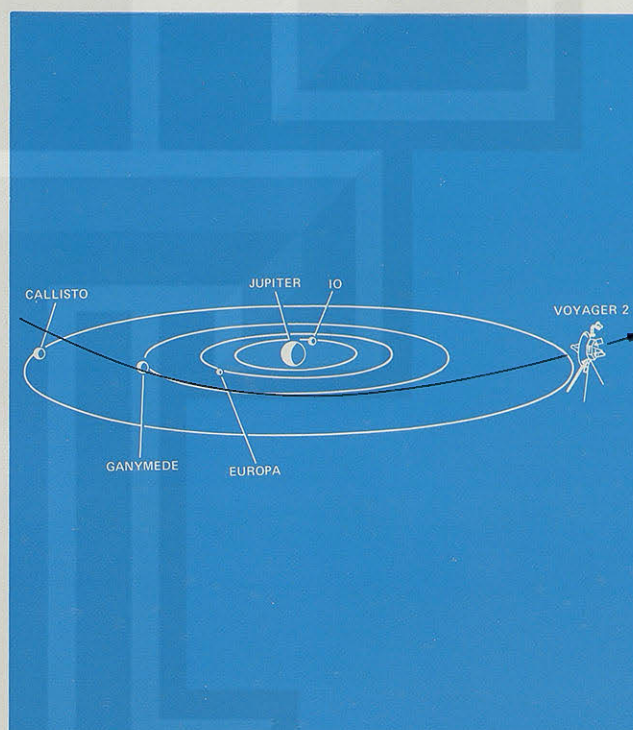
In December 1978, eighty days before closest approach, Jupiter will be a mere speck in the eye of Voyager's wide-angle cameras. But with each passing day, it will grow until it overflows the cameras' fields of view as the spacecraft nears its closest approach point in early March 1979. The white squares indicate the field of view of the narrow angle cameras.



Voyager 1's closest approach to Jupiter will be about 280,000 kilometers from the visible surface, as it passes between the great planet and its nearest satellite, Amalthea (hidden behind the planet in this simulated view). Closest approach to each satellite will occur as Voyager 1 passes out of the Jovian system.

the recording for later playback to Earth. As Voyager 1 disappears behind Jupiter, scientists will obtain valuable measurements of the atmosphere of the planet as sunlight and the dual-frequency (S-band and X-band) radio links pass through and are affected by the atmosphere.

As Voyager 1 soars away from Jupiter, boosted into its new flight path toward Saturn, it will examine all four of the big Galilean satellites of Jupiter: Io from 22,000 kilometers at +3 hours after closest approach, Europa from



Voyager 2, on a more cautious trajectory to avoid the intense planetary radiation, will pass 645,000 kilometers from Jupiter at its closest point. This flight path will cause Voyager 2 to encounter the satellites before the planet itself, as seen in this simulated view showing closest approach to each satellite.

733,000 kilometers at +5 hours, and Ganymede and Callisto from 120,000 kilometers at +14 hours and +29 hours, respectively.

Jupiter, and perhaps all of the outer planets, has an extensive magnetosphere, a region surrounding the planet in which energetic particles are trapped by the planetary magnetic field. The outer, least dense region of the Jovian magnetosphere is highly variable in size, perhaps due to varying pressure of the impinging solar wind.

As Voyager 1 brushes past Io, it will pass through the "flux tube," a region of magnetic and plasma interaction between Jupiter and Io caused by the intersection of Jupiter's magnetic field with Io. This tube, believed to be a circular cylinder of about the diameter of Io, affects the Earth-reception of Jupiter's radio emissions, and is a region of magnetic and plasma interaction.

Jupiter's gravity will slingshot Voyager 1 toward Saturn, 800 million kilometers farther from the Sun. As Jupiter grows smaller and smaller in the instruments' fields

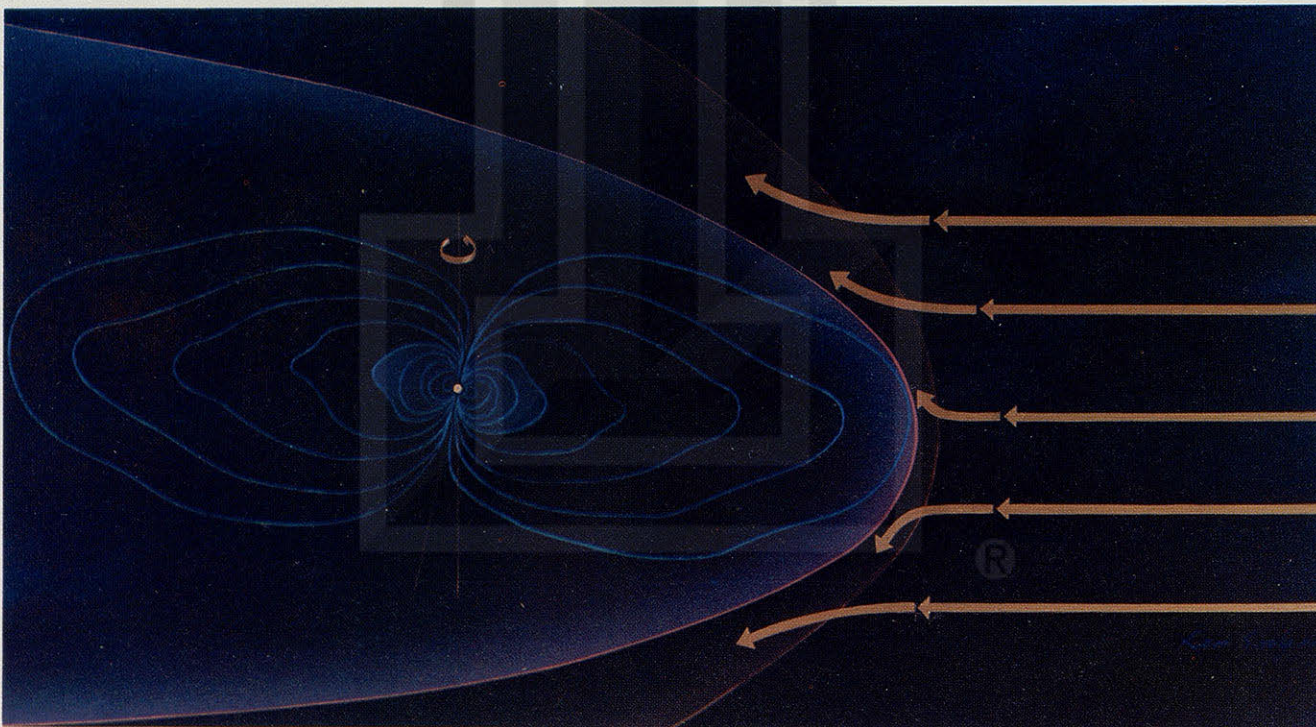
of view, Voyager 1 will continue to examine the planet and its satellites until mid-April, about six weeks after closest approach.

The second craft, Voyager 2, sailing along behind its speedier companion, will now move within range of Jupiter. Its "observatory phase," similar to Voyager 1's, will begin about April 20, 1979 and will last for approximately five weeks. Voyager 2 will continue the long-term observations, making what amounts to a motion picture of atmospheric movement of the largest planet in the solar system.



Between Jupiter and its satellite Io, Voyager 1 will pass through the flux tube (yellow), a region of high magnetic and plasma interaction. Jupiter is encircled by a cloud of hydrogen, while clouds of hydrogen (blue) and sodium (orange) surround Io, and trail the satellite's orbital path.

Voyager 2 will navigate a more cautious course: to avoid much of the intense radiation near the planet, it will fly much farther from Jupiter than its predecessor — no closer than 645,000 kilometers (about 9 Jupiter radii). It will not repeat the close flyby of Io, but before Jupiter encounter it will survey Callisto from 220,000 kilometers and Ganymede from 55,000 kilometers. It will fly within 201,000 kilometers of Europa and will take a flashing glance at Amalthea from 550,000 kilometers. Voyager 2 will make its closest approach to Jupiter on July 9, 1979. As it heads on towards Saturn, the craft will spend the rest of July and early August looking back over its shoulder at the receding Jupiter.



The outer, least dense region of the Jovian magnetosphere is highly variable in size, perhaps due to varying pressure of the impinging solar wind.

Exploring Saturn

Both craft will fly on through space, making their measurements and observations of a variety of phenomena and radioing their findings back to Earth. About one year after the Jupiter mission has ended, Voyager 1 will begin

On its inbound journey, Voyager 1 will closely examine an object of intense interest to scientists: the big satellite Titan. Titan is 5,800 kilometers in diameter, only slightly smaller than Mars. It is the only satellite known to have a dense atmosphere; the methane that surrounds Titan may be as dense as Earth's atmosphere. Titan's mass is

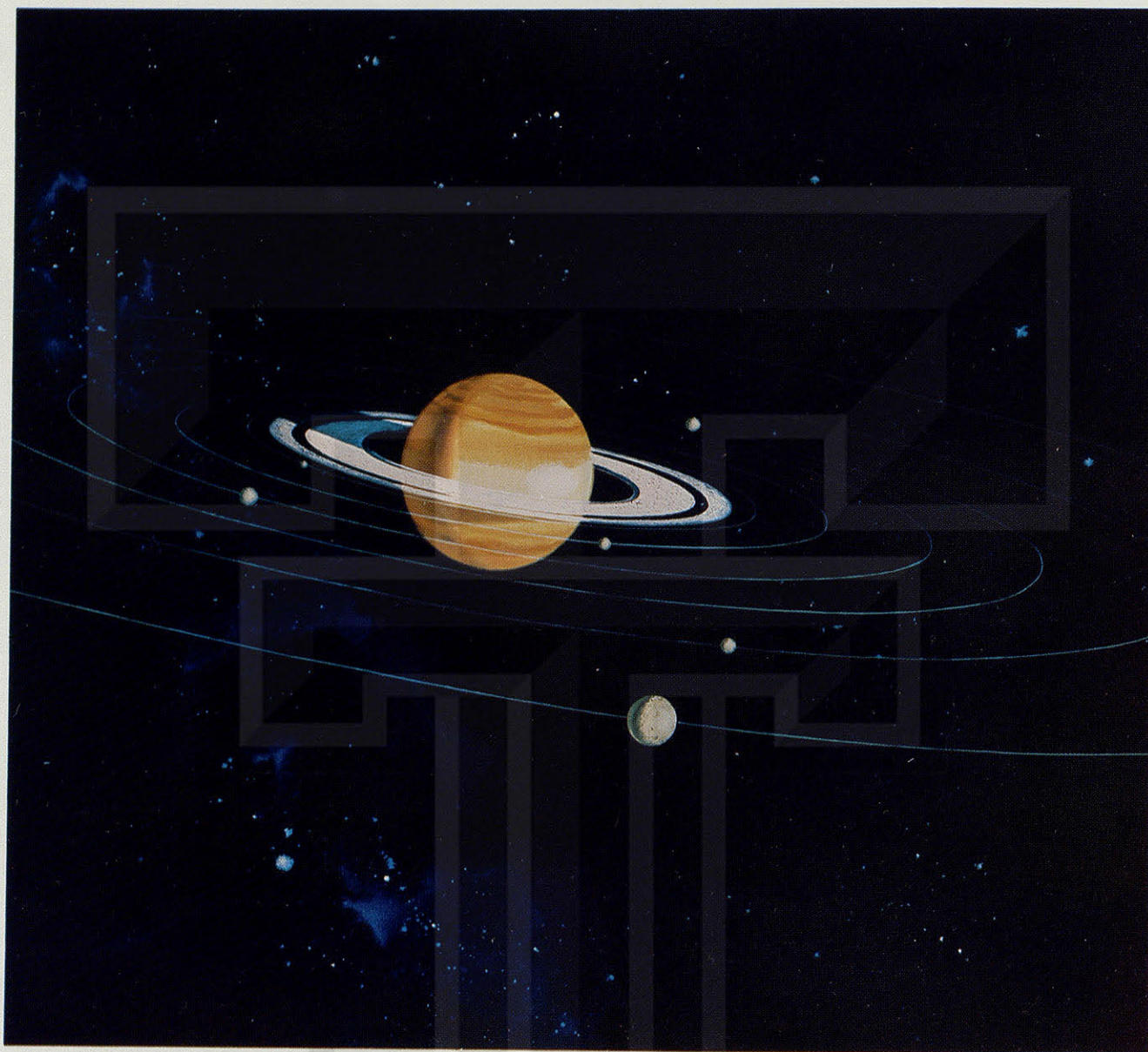


studying Saturn, in August 1980. By now the speedier Voyager 1 will have gained nine months on its lagging sister-spacecraft.

As Voyager 1 draws closer to the ringed planet, the planet's image will grow in the narrow-angle camera's field of view through the fall of 1980. By mid-October, the rings will be too large to be captured in a single frame and scientists back on Earth will combine several frames. Since no one knows how extensive Saturn's magnetosphere is, the fields and particles instruments will begin continuous high-rate data acquisition a month before the closest approach near November 13. Recent radio-astronomy observations from Earth satellites appear to confirm the presence of radio emissions from Saturn, suggesting that a magnetic field and an accompanying trapped radiation belt are present.

about twice that of the Moon. Some scientists have speculated that complex organic compounds could have formed in the atmosphere of Titan and now reside on the surface, leading to further speculation that it might even harbor some primitive form of life. Voyager 1 will sail a course only 4,000 kilometers from the surface of Titan, then will fly behind the satellite, cutting off the radio signal to Earth and passing through Titan's solar shadow. Again, the purpose is to analyze the atmosphere, just as Voyager 1 did at Jupiter. Instruments aboard Voyager 1 will be acquiring unique data: scientists cannot see Titan clearly from Earth.

Saturn has other satellites: ten have been discovered, so Voyager 1 will not be satisfied by its brush with Titan. It will also survey Tethys during the approach to Saturn and its rings, and Mimas, Enceladus, Dione and Rhea afterward.



Beginning in late 1980, Voyager will encounter the ringed planet Saturn and six of its satellites.

Voyager 1 will pass about 140,000 kilometers below Saturn's south pole, snapping hundreds of pictures as it passes. Wide-angle and narrow-angle cameras, polarimetric, ultraviolet and infrared instruments will scan the planet and its rings. The magnetosphere and accompanying regions of charged particles will be charted along the spacecraft's path.

Saturn's rings are not solid — they couldn't be because tidal forces and different rotational speeds at different distances from Saturn would break them up — so Voyager 1's radio signals will be able to trickle through the

rings and tell scientists a great deal about those unique objects. And the scientists will learn much more about Saturn's atmosphere and composition as the Sun's rays and the spacecraft radio signals fade and reappear again, as at Jupiter and Titan.

As Voyager 1 flies away from Saturn, its instrument scan platform will look back at the north polar region, the lighted crescent and the tilted rings, collecting long-range information for another month.

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A Second Look at Saturn

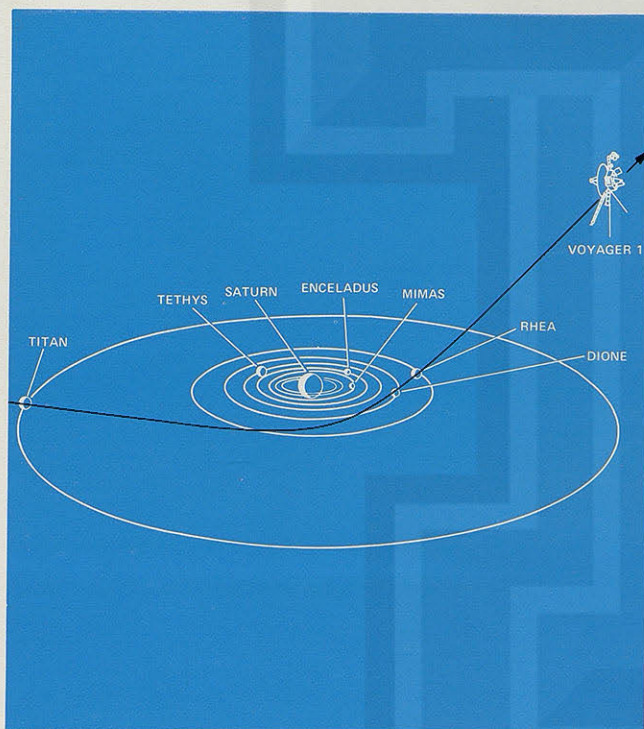
Six months after the first encounter ends, the following craft, Voyager 2, will cruise into range in June 1981. While the course of Voyager 1 has been carefully charted, mission planners have left their options open for Voyager 2.

There are two choices. The second spacecraft could repeat the mission of its predecessor, complete with close Titan pass and flight beneath the south pole. But, if all has gone well with the first encounter with Saturn, its rings, and Titan, and if the trailing craft is healthy, controllers and scientists might pick a new path, using Saturn's gravity to boost Voyager 2 toward distant Uranus. This plan calls for another close pass by Saturn, brushing near the outer edge of the rings. Voyager 2 would whip past the ring plane about 38,000 kilometers beyond the outer edge visible from Earth, foregoing a repeat of the close Titan pass. Instead, Voyager 2 would pass about 353,000 kilometers

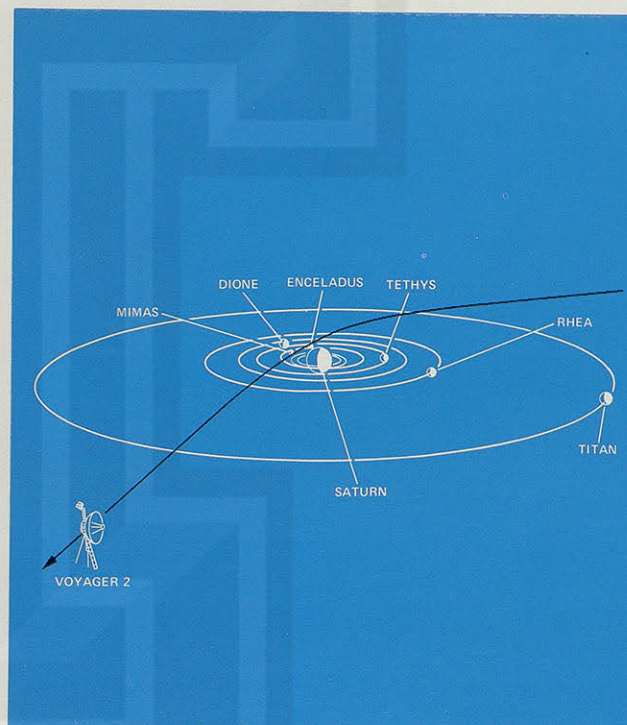
from Titan. Rhea would come within 254,000 kilometers of Voyager; Tethys, 159,000 kilometers; Enceladus, 94,000 kilometers; Mimas, 33,000 kilometers; and finally Dione, 196,000 kilometers distant.

Voyager 2 will flash past Saturn on August 27, 1981, heading ever outward from the Sun, looking back toward Saturn until late September.

By that time, the two Voyagers will have completed close-up examinations of two planets and their satellites. The quantity of planetary data compiled will exceed that amassed by Mariner 9 in its 11-month survey of Mars, to which may be added several years' worth of fields and particles measurements in unexplored regions of the outer solar system. The atmospheres and magnetospheres of the planets will have been analyzed and charted, and five Jovian and six Saturnian satellites will have been surveyed in considerable detail.



As Voyager 1 sails through the Saturnian system, it will pass 140,000 kilometers from the ringed planet's southern polar region, and cruise past six of the ten known Saturnian satellites. This view shows the approximate position of each satellite at closest approach by the spacecraft.



Voyager 2 will gain an even closer look at Saturn. For the Uranus option trajectory, it will pass within 38,000 kilometers of the outer edge of the rings, and again will survey the same six satellites. This simulated view shows the approximate position of each satellite at closest approach by Voyager 2.

Voyager Science Operations

The scientific investigations of the Voyager mission are multipurpose: most are intended to obtain data in a variety of environments. For example, the ultraviolet spectrometer is oriented toward planetary and satellite atmospheres and toward studies of interplanetary and

interstellar hydrogen and helium. The magnetic fields experiments will examine the magnetospheres of the planets and the search for the transition between solar and galactic regions.

Thus, it is difficult to separate "planetary" from "interplanetary" instruments and experiments. There is,

VOYAGER SCIENTIFIC INVESTIGATIONS

Experiment	Principal Investigator	Primary Measurements
Cosmic Ray	R. E. Vogt, California Institute of Technology	Energy spectra and isotopic composition of cosmic ray particles and energetic particles in outer planetary magnetospheres.
Imaging Science	Team Leader, Bradford Smith, University of Arizona, Tucson	Imaging of planets and satellites at resolutions and phase angles not possible from Earth. Atmospheric dynamics and surface structures.
Infrared Interferometer Spectrometer	Rudolf Hanel, Goddard Space Flight Center	Energy balance of planets. Atmospheric composition and temperature fields. Composition and physical characteristics of satellite surfaces and Saturn rings.
Low-Energy Charged Particles	S. M. Krimigis, Johns Hopkins University, Applied Physics Lab.	Energy spectra and isotopic composition of low-energy charged particles in planetary magnetospheres and interplanetary space.
Magnetometer	Norman Ness, Goddard Space Flight Center	Planetary and interplanetary magnetic fields.
Photopolarimeter	Charles Lillie, University of Colorado	Methane, ammonia, molecular hydrogen, and aerosols in atmospheres. Composition and physical characteristics of satellite surfaces and Saturn rings.
Planetary Radio Astronomy	James Warwick, University of Colorado	Planetary radio emissions and plasma resonances in planetary magnetospheres.
Plasma	Herbert Bridge, Massachusetts Institute of Technology	Energy spectra of solar-wind electrons and ions, low-energy charged particles in planetary environments, and ionized interstellar hydrogen.
Plasma Wave	Frederick L. Scarf, TRW Systems Group	Dynamics of planetary magnetospheres and satellite perturbation phenomena associated with charged particle-plasma wave interactions. Determination of electron density.
Radio Science	Team Leader, Von R. Eshleman, Stanford University	Physical properties of atmospheres and ionospheres. Planet and satellite masses, densities, and gravity fields. Structure of Saturn rings.
Ultraviolet Spectrometer	A. Lyle Broadfoot, Kitt Peak National Observatory	Atmospheric composition including hydrogen to helium ratio. Thermal structure of upper atmospheres. Hydrogen and helium in interplanetary and interstellar space.

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however, another way of grouping: the optical scanners, mounted on the spacecraft's scan platform, have narrow fields of view and must be accurately pointed. They collect radiant energy (light, for example) from their targets and create images or spectral information that permit scientists to understand the physical form or chemical composition of the planets and satellites. Experiments in this group include the imaging-science instruments (the cameras), the infrared interferometer-spectrometer and radiometer, the ultraviolet spectrometer and the photopolarimeter.

A second family of experiments senses magnetic fields and fluxes of charged particles as the spacecraft passes through them. These instruments, fixed to the body of the spacecraft, have various fields of view; their data taken together will provide information on planetary magnetic fields and trapped radiation zones (and indirectly,

on interior structures), on Sun-planet and planet-satellite interactions, and on cosmic rays and the outer reaches of the solar plasma. These experiments are the plasma, low-energy charged particles, cosmic ray and magnetic-fields investigations.

A third family of experiments consists of the planetary radio astronomy and the plasma-wave experiments, whose long antennas will listen for radio emissions from Jupiter and will measure waves in the plasma surrounding the planets.

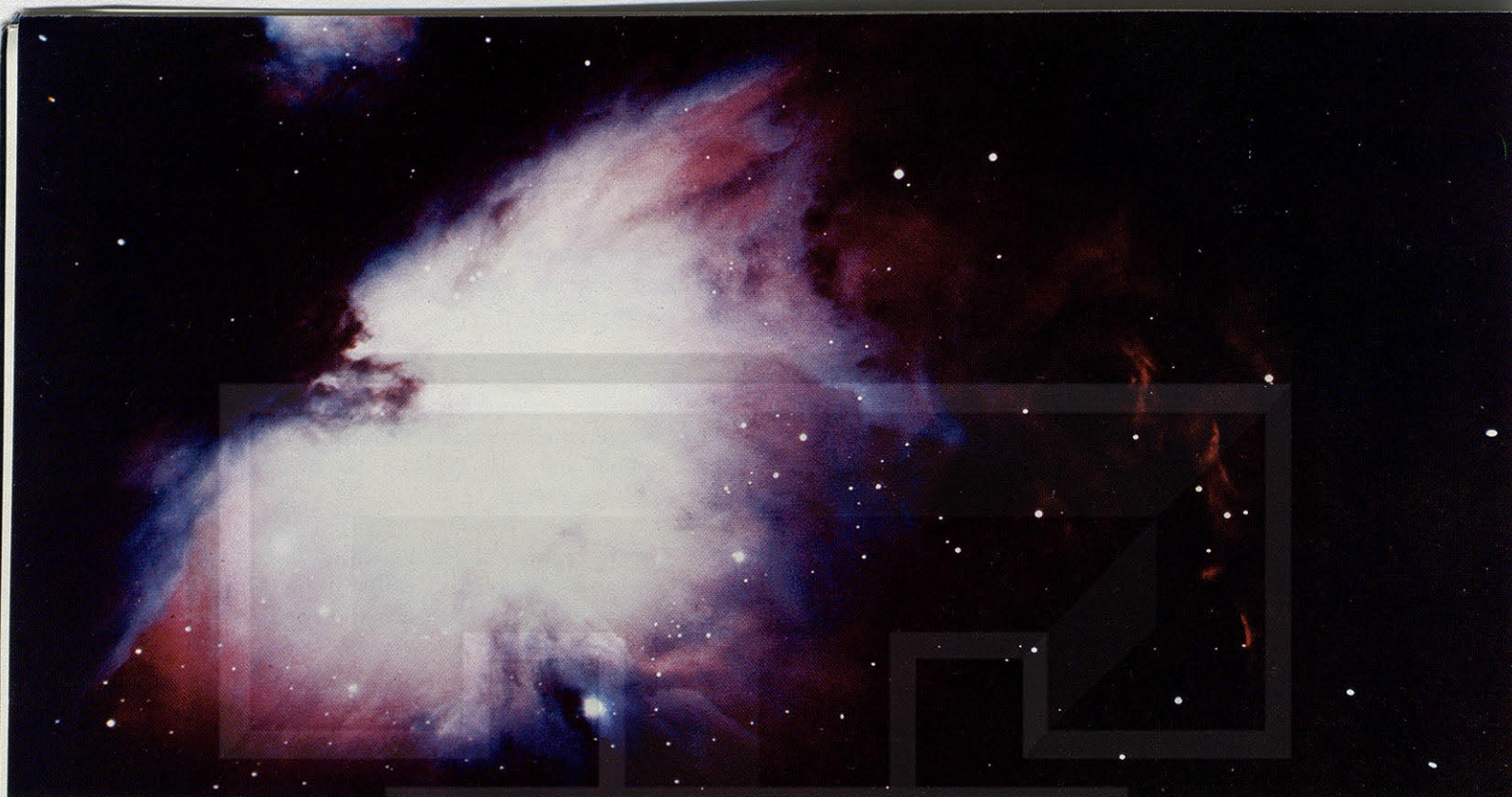
A radio experiment will use S-band and X-band radio links between the spacecraft and Earth to gather information on planetary and satellite ionospheres and atmospheres, and spacecraft tracking data to chart gravitational fields that affect Voyager's course.



The giant antennae of the world-wide Deep Space Network such as the 64-meter dish at Goldstone, California, will receive the spacecraft radio signals and route them on to Mission Operations for analysis.



Mission Operations at the Jet Propulsion Laboratory, Pasadena, California, will be the focal point of Earth activities during the 8-1/2-year mission.



Our solar system may have had its beginnings within an immense, rarified gaseous body such as the Orion Nebula.

What We Hope to Learn

A major objective of the space program is to acquire a basic understanding of the solar system and its origin and evolution. Most theoretical models state simply that the solar system started with a gaseous nebula. Temperature, pressure and density of the gas decrease with distance from the Sun. Formation of the planets is believed to have resulted from accretion of the nebular material. Observed differences in the planets are accounted for by variations in the material and conditions at formation. Knowledge gained at each planet or satellite can be related to others and contributes to overall understanding.

Missions to Mars, Venus, Mercury and the Moon have contributed greatly to this body of knowledge. Each of these planets has its own personality, significantly different from others because of its unique composition and relationship to the Sun. Individual as they are, they are generally related as bodies that originated near the Sun and are composed mainly of heavier elements. They are classified as "terrestrial" planets.

Scientists have known for a long time that Jupiter, Saturn and the other outer planets differ significantly from the terrestrial planets. They have low average densities; only hydrogen and helium among all the elements are light enough to comprise the bulk of these planets. Jupiter and Saturn are sufficiently massive (318 and 95 times Earth's mass, respectively) to indicate that they have retained almost all of their original material. They are, however, only relatively pristine examples of the material from which

the solar system formed because, while little or no planetary material has been lost, the planets have evolved during almost 5 billion years. If that evolution can be traced, scientists could obtain an understanding of the early state of that region of the solar system.

Ground-based observations and Pioneers 10 and 11 have determined that Jupiter radiates more energy than it receives from the Sun, and this appears true at Saturn, also. An exact measure of this imbalance is impossible from Earth, since only a portion of the planets' surfaces — the fully lighted dayside — can be seen. It is difficult to study early morning and late afternoon regions, and impossible to see their night sides.

The Interiors: Clues to the Universe

Any discussion of interior temperatures of the outer planets is impossible without knowing how much energy flows from those interiors. Discussion of their evolution requires knowledge of whether the energy is caused by primordial heat, gravitational contraction, or perhaps just energy from a short-period storage mechanism. An understanding of a planet's atmospheric structure and dynamics requires accurate knowledge of the magnitude and location of sources heating that atmosphere.

Jupiter and Saturn, unlike the dense, rocky planets Mercury, Venus, Earth and Mars, are composed mostly of hydrogen and helium — but how much of each? The answer will reveal the general structure of the interior of the

planets. If the ratio of hydrogen to helium is the same as for the Sun, differences in observed properties of Jupiter and Saturn can be explained by differences in their mass and in the amount of condensed rock-forming material in the planetary cores — very small for Jupiter and perhaps slightly more for Saturn. If the ratio of hydrogen to helium varies from solar composition, and is lower at Saturn than at Jupiter, then planetary interiors without rocky cores can be inferred.

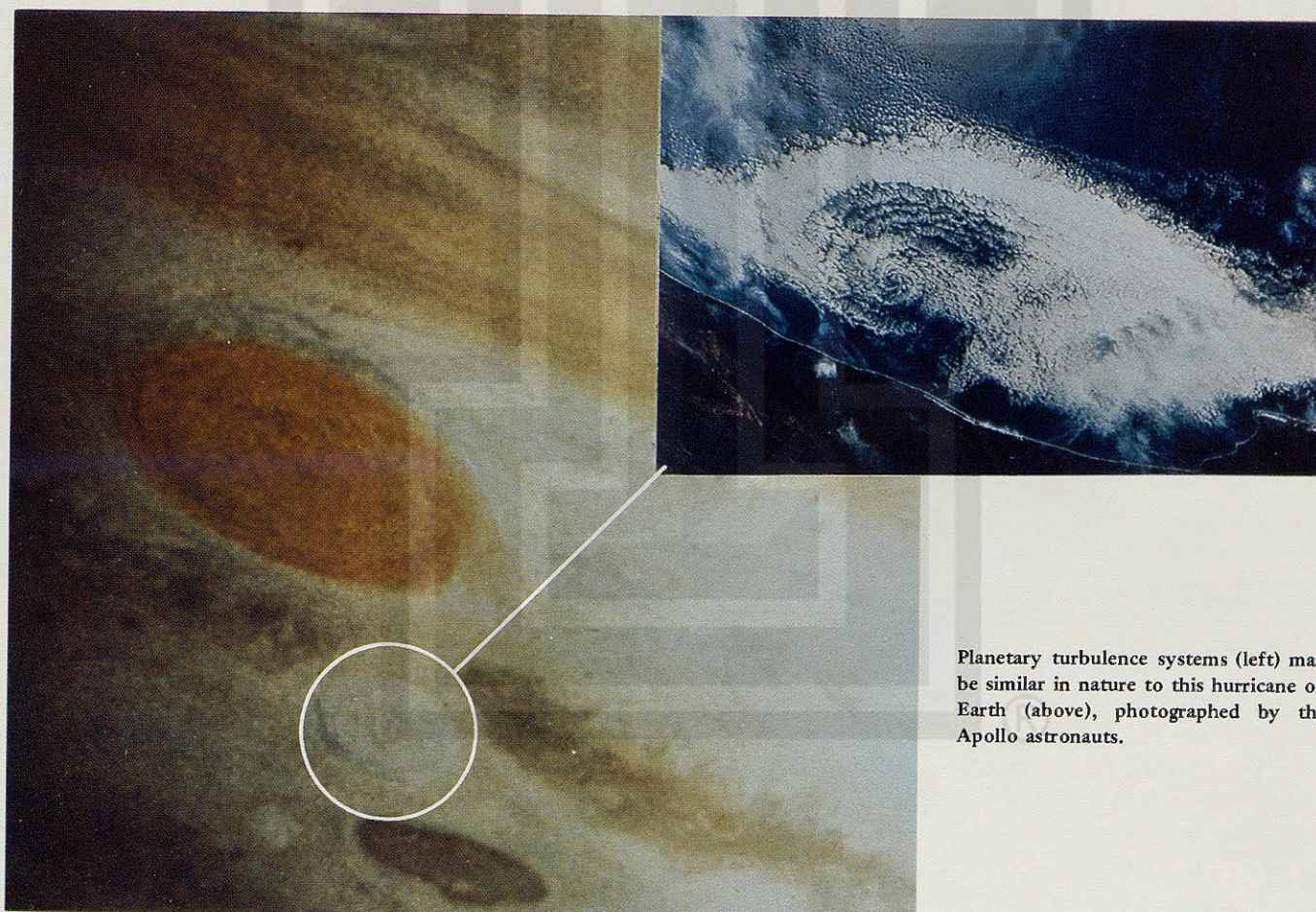
The ratio of hydrogen to helium, therefore, is of fundamental importance. Spectroscopy from Earth offers no answers because cold helium cannot be detected. Attempts to study helium by its effects on other atoms or molecules have been unsuccessful because of the complex atmospheric structure of the outer planets, which have mixed clouds, hazes, and gases that vary over the surfaces.

Measurements by the Pioneer spacecraft have determined this hydrogen to helium ratio to be near the solar value, but a more precise determination to be made by the Voyager spacecraft at several depths of the atmospheres of Jupiter and Saturn will provide fundamental bounds on the interior models of both planets.

The magnetic field of a planet is an externally measurable indication of conditions deep in the interior. Jupiter has a magnetic field more than ten times stronger than Earth's. The planet's radio bursts are related to radiation belts that are in turn related to the existence of the strong magnetic field. A variety of related phenomena can be directly measured by instruments near the planet. The detailed study of these phenomena and their interaction with the solar field surrounding the planet will reveal much of what lies at various depths below the clouds.

Direct evidence of a magnetic field and related phenomena is not available for Saturn. Only recently have indirect observations, from Earth-orbiting satellites, indicated the presence of a magnetic field. A close-up comparison of Saturn with Jupiter will be of great interest.

The visible surfaces of Jupiter and Saturn are spectacular. They are not solid surfaces at all, but extremely complex opaque cloud structures with massive turbulence systems — suggesting some of the more severe hurricanes on Earth — that move rapidly across the planet.



Planetary turbulence systems (left) may be similar in nature to this hurricane on Earth (above), photographed by the Apollo astronauts.

Often these storm systems appear, mature and vanish in a few days. One — the famous Great Red Spot — seems to be nearly permanent. It disappears rarely and then for only a short time.

A systematic study of the dynamics and composition of the clouds of Jupiter and Saturn will provide information on the cloud layers and physical mechanisms causing movement. The information, when compared to planets like Earth, Mars and Venus, will permit scientists to test general theories of climatology over widely varying conditions. The studies will be made over several months at each planet.

Evolution of the Satellites

The many satellites of Jupiter and Saturn and Saturn's spectacular rings present opportunities to understand condensed material in the outer solar system. The studies will test theories that predict chemical composition of condensed material according to distance from the Sun, given assumed conditions in the solar nebula. The chemical histories and surface evolution (including records of meteorite impacts) of the satellites will be entirely different

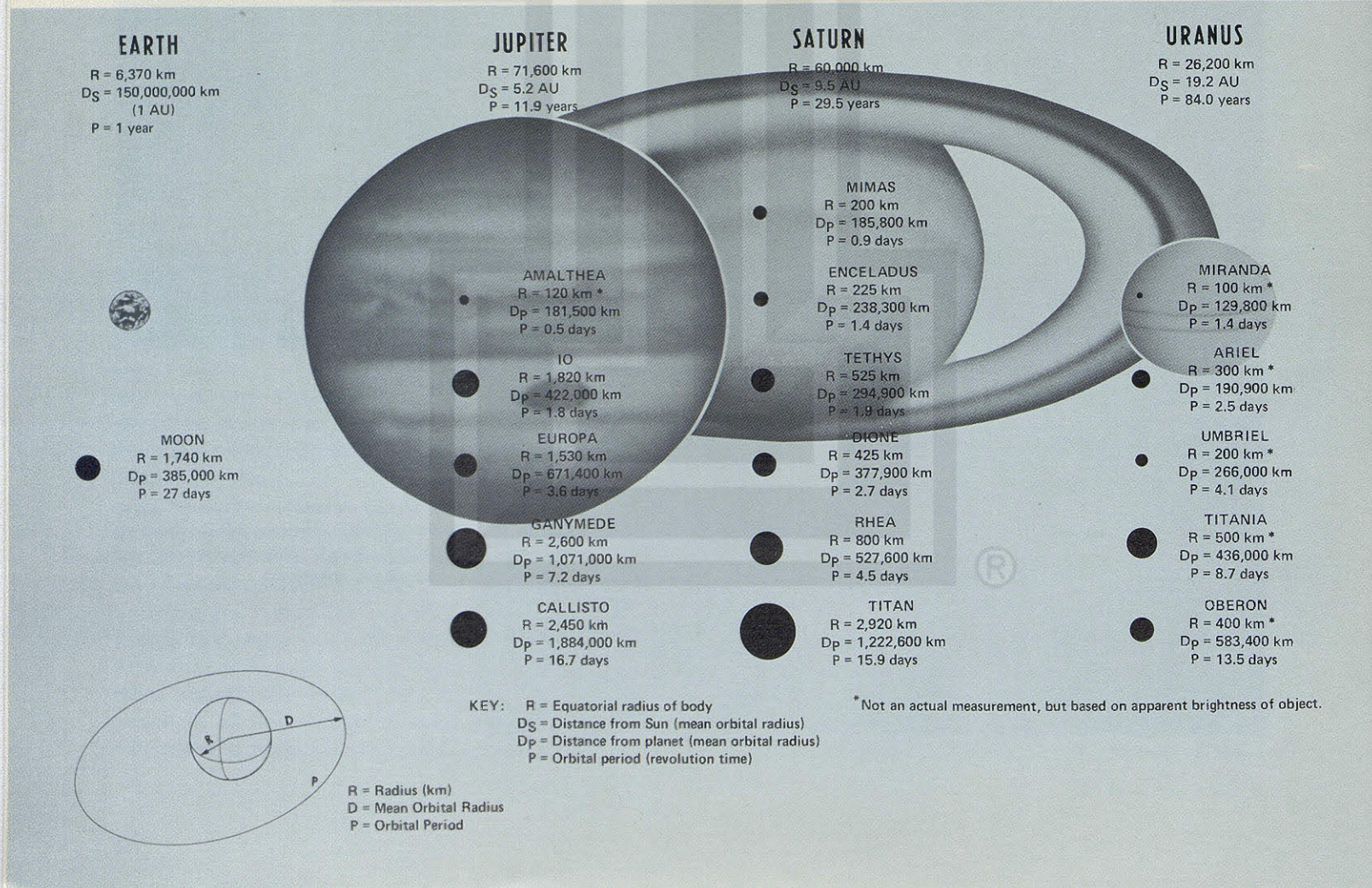
from the planets of the inner solar system; they are, therefore, of primary interest for detailed study.

Saturn's satellite Titan, as a specific case, has an atmosphere perhaps as dense as that of Earth. Given the assumed concentrations of methane, and a solid surface on which complex molecules can accumulate, it is a likely site of simple organic compounds and, therefore, an extremely important body for detailed exploration.

The small satellites of Jupiter are similar to asteroids in size. Presumably, they have been pulled from the asteroid belt and captured by the planet. Because they are so small, they rapidly dissipate any heat produced by radioactive decay and should not have changed significantly since formation.

Saturn's rings are often explained as remnants of a gaseous disk that once surrounded Saturn and from which its major satellites formed. Since that description loosely compares with the formation of the planets themselves, detailed study of the rings may provide clues to the behavior of the gaseous disks that might have evolved into the satellites and, indeed, the entire solar system.

Comparison of Earth, Jupiter, Saturn, Uranus and Their Major Satellites



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190,900 km
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MBRIEL
200 km *
266,000 km
1.1 days

TANIA
500 km *
436,000 km
3.7 days

BERON
400 km *
583,400 km
13.5 days

tness of object.



Beyond Saturn

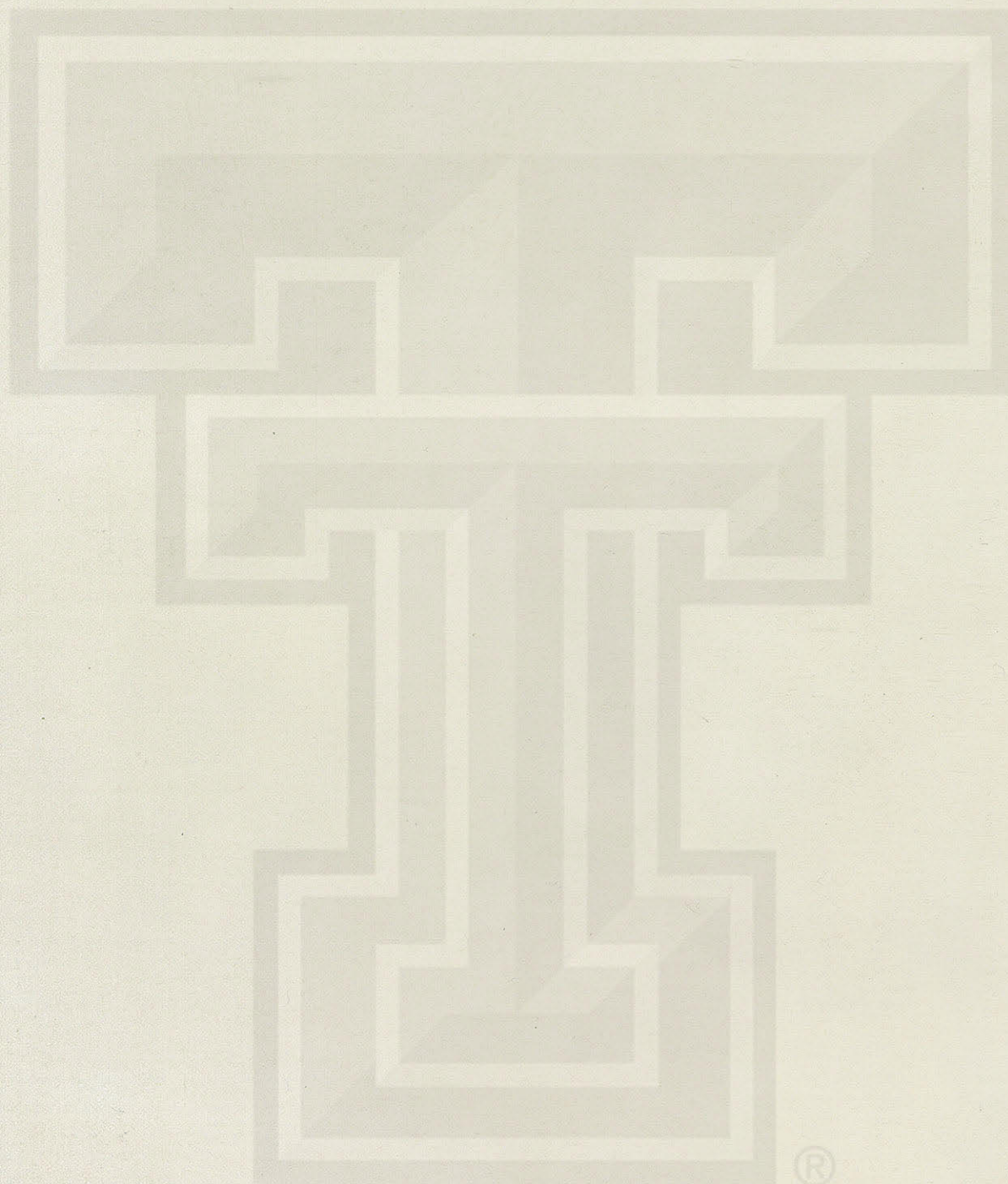
If the option to journey on to Uranus is exercised, Voyager 2 will sail within range of Uranus in January 1986, more than four years after leaving Saturn.

Uranus is markedly different from Jupiter and Saturn. It is tilted so far on its axis that the poles lie almost in the plane of the ecliptic. Thus, in contrast to the other planets, Uranus lies on its side. It circles the Sun once in 84 years. Once in each orbit the Sun shines directly down on the north pole; 42 years later the south pole is lighted. In 1986, the orientation of Uranus will allow Voyager 2 to fly almost perpendicular to the equatorial and satellite plane. Voyager 2 will get a good look at any magnetosphere and

plasma cloud that may be present, and could photograph the sunlit hemisphere of Uranus and all of its satellites. The spacecraft will also provide a first close observation of the newly discovered rings of Uranus. Voyager 2 would then sail out through the planet's wake, looking back at the dark southern hemisphere.

Years after launch, perhaps 30 times farther from the Sun than Earth is, their attitude control gas spent, the two Voyagers will be unable to respond to attitude correction commands from their Earth masters, and communications will fade and disappear as they drift out of range.

Their mission of discovery and exploration complete, the two craft will sail on forever.



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Prepared under Contract No. NAS7-100
National Aeronautics & Space Administration



JUN 15 1961

R. B. PHILLIPS
CAPT MC USN
MEDICAL OFFICER
NAS NORTH ISLAND
SAN DIEGO 35, CALIF.

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1	1 SCOP/DEX 1 PROM. EPH.	2	2 SCOP/DEX 1 PROM. EPH.	3	2 SCOP/DEX 1 PROM. EPH.	4	1 SCOP/DEX	5	NONE	6	NONE	7	NONE	8	1 PROM EPH	9	NONE
10	NONE	11	NONE	12	NONE	13	NONE	14	LIP BALM AS NECESSARY	15	NONE	16	NONE	17	(2) ASA	18	NONE
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28	NONE	29	NONE	30	NONE	31	NONE	32	NONE	33	1 PROM-EPH	34	NONE	35	NONE	36	NONE
37	1 DALMANE	38	NONE	39	NONE	40	NONE	41	NONE	42	NONE	43	NONE	44	NONE	45	NONE
46	NONE	47	NONE	48	NONE	49	1 DALMANE	50	NONE	51	NONE	52	NONE	53	NONE	54	NONE
55	NONE	56	NONE	57	NONE	58	NONE	59	DALMANE	60	1 SUDAFED	61	NONE	62	AFRIN (1)	63	1 DALMANE
64	NONE	65	NONE	66	NONE	67	ASPIRIN (2 EA)	68	NONE	69	NONE	70	NONE	71	DALMANE (1)	72	NONE
73	NONE	74	AFRIN	75	AFRIN	76	1 DALMANE	77	NONE	78	NONE	79	NONE	80	1 AFRIN APPL.	81	NONE
82	1 PROM. EPH.	83	1 DALMANE	84	1 DALMANE	85	AFRIN SCOP/DEX	86		87		88		89		90	

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37	TINACTIN SOL. 2 APPL.	38	TINACTIN 2 APPL.	39	TINACTIN 2 APPL.	40	TINAC. 2 APL. AFRIN. PRE & POST EVA	41	TINACTIN 2 APPL.	42	TINACTIN 2 APPL.	43	TINACTIN 2 APPL.	44	TINACTIN 2 APPL. AFRIN 1 APP. POST EVA	45	TINACTIN 2 APPL.
46	NONE	47	NONE	48	NONE	49	CHLORAL HYDRATE (ONE)	50	1 SECONAL	51	1 SECONAL	52	NONE	53	NONE	54	NONE
55	AFRIN	56	NONE	57	NONE	58	NONE	59	NONE	60	1 SECONAL	61	AFRIN (TWICE)	62	AFRIN (1)	63	NONE
64	NONE	65	1 SUDAFED AFRIN 1	66	1 SUDAFED AFRIN (2 APP.)	67	AFRIN (ONE APPL.)	68	AFRIN (2 APPL.)	69	AFRIN (2 APPL.)	70	AFRIN (2 APPL.)	71	ACTIFED (1)	72	ACTIFED (3)
73	ACTIFED (3)	74	ACTIFED (3)	75	3 ACTIFED	76	(ONLY 1) ACTIFED	77	2 ACTIFED	78	1 ACTIFED	79	1 ACTIFED	80	1 ACTIFED	81	NONE
82	SECONAL 1 ACTIFED	83	SECONAL	84	1 SECONAL 1 ACTIFED	85	SCOP/DEX	86		87		88		89		90	

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NASA

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UNCLAS EX1365-59 HQ ATTN W C SHNEIDER MG. INFO MSF EXPERIMENT BOARD
EXECUTIVE SECRETARY. SUBJECT: EXPERIMENT M-4 GEMINI VII; REFERENCES
ORLET EX2 8-3-65 AND URLET M-C MSGS 1352.2 6-14-65.

A CHANGE IN SUIT CONFIGURATION FOR GEMINI VII ALLOWS USE OF A BIOMED
CHANNEL FOR ONE CREW MEMBER FOR EXPERIMENT M-4. THE EXPERIMENT WILL
FLY ONLY ON THE PILOT ON GEMINI VII AND IS NOT SCHEDULED FOR ANY
OTHER GEMINI MISSIONS. NO CHANGE ON EXPERIMENT M-8. IN-FLIGHT SLEEP
ANALYSIS IS REQUIRED OR PLANNED.

SGD ROBERT O PILAND MANAGER EXPERIMENTS PROGRAM OFFICE

BT

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TABLE 2

HUMAN FACTORS SPECIFICATIONS

AMC P.I. 7-380	Human Factors Engineering Contract Clause
AMCR 10-4	Organizations and Functions, Mission and Functions, of Human Engineering Laboratories
WADC TR-56-488	Human Engineering Guide for Equipment Design
WDT 57-8A	Human Engineering Design Standards for Missile System Equipment
AFBM 60-1	Personnel Subsystem Testing for Ballistic Missiles and Space Systems
AFBSD 61-99	Human Engineering, General Specification for the Development of Air Force Ballistic Missile Systems
AMCR 70-1	Responsibilities of AMC Major Subordinate Commands and Project Managers in Application of Human Factors Engineering
AR 70-8	Human Factors and Nonmaterial Special Operations Research
AFSCM 80-3	Hanbook Instructions for Personnel Subsystem Designers
MSFC-STD-267	Human Engineering Design Standard for Space Vehicle Systems and Support Equipment
AFL 375-5	Planning and Programming for System Personnel
ABMA-STD-434	Weapon Systems Human Factors Engineering Criteria (U.S. Army Missile Command) (Lists 21 specifi- cations affecting Human Factors)
MIL-STD-803	Human Engineering Criteria for Aircraft, Missile and Space Systems Ground Support Equipment
ABMA-XPD-844	Weapon System Human Factor Design Criteria (Pershing)
SCL 1787	Human Factors Engineering for Signal Corps Systems and Equipment
MIS 10017	Human Factors Engineering Development of Missile Systems
OD 18413	Human Factors Design Standards for Fleet Ballistic Missile Weapons Systems

Table 2 Cont.

MIL-H-22174	Human Factors Data for Aircraft and Missile Systems
MIL-D-26207	Human Factors Data for Guided Weapon Systems
MIL-D-26239	Data, Qualitative and Quantitative Personnel Requirements Information
MIL-H-27894	Human Engineering Requirements for Aerospace Systems and Equipment
AR-594-5-62-601	U.S. Government Regulatory Documents Applicable to Human Engineering (references over 100 documents on subject)
RH-398, IDEP Report #347.10.00.00-GI-01	Basic References and Sources of Information in Human Factors Engineering (references 434 documents on subject)
AFSCM 80-1	Handbook Instructions for Aircraft Designers
AFSCM 80-3	Handbook Instructions for Personnel Sub-System Designers
AFSCM 80-5	Handbook Instructions for Ground Equipment Designers
AFSCM 80-6	Handbook Instructions for Ground Support Equipment Designers
AFSCM 80-7	Handbook Instructions for Aerospace Vehicle Equipment
AFSCM 80-8	Handbook Instructions for Missile Engineers
AFSCM 80-9	Handbook Instructions for Weapon System Designer

*W. B. Rossnagel, "A list of government specifications, standards, manuals, handbooks and notable reports - the area of reliability, quality assurances, maintainability, value engineering, safety, and human factors," Aerospace Division, Walter Kidde and Co., Inc., Belleville 9, N. J., Feb. 1, 1964.

TABLE 3

SOME HUMAN ENGINEERING HANDBOOKS

- H. Wallace Sinaiko, ed., Selected Papers on Human Factors in the Design and Use of Control Systems, Dover Publications, Inc., New York, 1961.
- Paul Webb, ed., Bioastronautics Data Book, NASA SP-3006, Scientific and Technical Information Division, NASA, Washington, D. C., 1964
- B. F. Lomov, "Man and Technology (Outlines in Engineering Psychology)" USSR, 28 March 1963, (translation), JPRS:22, 300, OTS 64-21030, U.S. Department of Commerce, Office of Technical Services, Joint Publication, Research Service, Washington 25, D. C., 2nd printing, 7 Feb. 1964.
- Wesley E. Woodson and Donald W. Conover, Human Engineering Guide for Equipment Designers, 2nd ed., University of California Press, Berkeley, California, 1964.
- Ernest J. McCormick, Human Factors Engineering, 2nd ed., McGraw Hill Book Co., New York, 1964
- Edward Bennett, James Degan & Joseph Spiegel, eds., Human Factors in Technology, McGraw Hill Book Co., New York, 1963
- Clifford T. Morgan, Jesse S. Cook, III, Alphone Chaponis, & Max W. Lund, eds., Human Engineering Guide to Equipment Design, McGraw Hill Book Co., Inc., New York, 1963.
- Bernard Berelson & Gary A. Steiner, Human Behavior, an Inventory of Scientific Findings, Harcourt, Brace, and World, Inc., New York, 1964.
- Lawrence J. Fogel, Biotechnology: Concepts and Applications, Prentice-Hall, Inc., Englewood Cliffs, N. J., 1963.

COMPOUND INTEREST CALCULATIONS

i = Interest rate per interest period (month, year, etc.).

n = Number of interest periods.

P = Present sum of money, as in amount borrowed.

S = Sum of money n interest periods from present date that is equivalent to P with interest rate i .

R = End of period payment (monthly, yearly, etc.) in a uniform series continuing for the coming n periods, the entire series equivalent to P at interest rate i .

$$S = P(1+i)^n$$

$$P = S \left[\frac{1}{(1+i)^n} \right]$$

$$R = S \left[\frac{i}{(1+i)^n - 1} \right]$$

$$R = P \left[\frac{i(1+i)^n}{(1+i)^n - 1} \right]$$

$$S = R \left[\frac{(1+i)^n - 1}{i} \right]$$

$$P = R \left[\frac{(1+i)^n - 1}{i(1+i)^n} \right]$$

SAMPLE PROBLEM

Want to borrow \$5000., repaid in series of uniform payments, each month, at annual interest rate of 5.4% per annum. Repayment period to be 10 years. What is the monthly payment?

$P = \$5000.$ $i = 5.4\%$ per annum, or $\frac{5.4\%}{12} = 0.0045$
 $n = 10 \times 12 = 120$

$$\text{USE: } R = P \left[\frac{i(1+i)^n}{(1+i)^n - 1} \right]$$

$$R = \$5000 \left[\frac{0.0045 (1.0045)^{120}}{(1.0045)^{120} - 1} \right]$$

take \ln of 1.0045, and multiply by 120, take antiln to get 1.7139

$$R = \$5000 \left[\frac{0.0045 (1.7139)}{0.7139} \right]$$

$$R = \$54.01$$

Enrollment Contract

Art Center College of Design 5353 West Third Street, Los Angeles, California 90020. Telephone (213) 938-5166

Mr. VIDOGRAD LUCIA EMILY Date NOV 12
PLEASE PRINT LAST FIRST MIDDLE
 Permanent Home Address 6529 SOTHORON RD. Age 22
 City MCLEAN State VA Zip 22101 Phone 703-256-4998
(WITH AREA CODE)
 Local Address 4467 W. 5TH ST
(YOUR RESIDENCE WHILE ATTENDING THIS COLLEGE IF KNOWN)
 City LOS ANGELES California Zip 90020 Phone 384-4313
(WITH AREA CODE)

Single ☒ Married ☐ Number of Children NONE

If applicable check below.

I am attending on:

P.L. 358 (G.I. Bill) ☐

P.L. 634 (War Orphans) ☐

P.L. 894 (Voc. Rehab.) ☐

I-20 (Foreign Student Visa) ☐

I hereby enroll for the full trimester beginning FEB 16 1976 and ending MAY 28 1976
 and agree to all conditions currently in effect.

Payable in advance

I hereby agree to pay to the Art Center College the
 sum of \$ 1,100.00 covering the
 full period of enrollment checked above. Said sum
 to be paid in advance, on or before time of entrance.

Budget payment plan

I hereby agree to pay the Art Center College the sum of \$ _____
 in equal amounts of \$ _____, beginning with the
 first payment on or before _____ and the
(ENTRANCE DATE)
 balance payable each five weeks in advance thereafter throughout
 the term of enrollment.

The tuition rates are subject to change and the amount to be paid will be the tuition charges in effect as set by the Art Center College at the time of your admission. Should you by reason of any increase in tuition rates desire to withdraw from your enrollment contract, you may do so, and the Art Center College will return your deposit, if any.

Conditions on the reverse side are part of this contract which is binding for payment in full except as provided by the refund schedule.

Please sign

(SIGNATURE OF STUDENT)

(DATE OF BIRTH)

(SIGNATURE OF GUARANTOR — IF STUDENT IS A MINOR)

(ADDRESS OF GUARANTOR)

Do not write below

DATE	NEW	CONT.	RET.	RECEIPT NO.	MAJOR	TERM
					<u>ILL</u>	<u>8</u>

FOR ART CENTER COLLEGE OF DESIGN

Important

The College operates on a trimester basis: *New students are admitted at the beginning of each of the three annual terms. When a student has enrolled, a place is reserved for him in every class he requires. If a student leaves College during a term, his place in all his classes cannot be taken by another.*

Refund Policy

In the event of a student's discontinuance of attendance by absence, dismissal by the College, or withdrawal, the College makes the following adjustments based on the *total term tuition* whether payment is made in advance or on the budget plan:

Refund Schedule

<i>Attendance from beginning of term</i>	<i>Refund of Advance Payment or Credit on Budget Payment Plan</i>
Through end of second week.....	80%
Through end of third week.....	60%
Through end of fourth week.....	40%
Through end of fifth week.....	20%
Five weeks or more.....	No refund or credit

Student Requirements

Students are required to be on the campus during all regular school hours and attending required classes, unless engaged in pursuit of authorized research or location assignments off campus. Unauthorized absence or failure to follow through on authorized off-campus projects may result in dismissal. Auditing of classes is not permitted. Any student attending a class for which he has not been scheduled by

the Program Director's Office is subject to dismissal from the College.

The continuation of a student upon the rolls of the College and the receipt by him of academic credit shall be subject to his general deportment and conduct. Unseemly personal conduct on or off the campus, or the engaging in activities on or off the campus, inimical to the reputation of the College or detrimental to the community in general, or to the interests of the reputation of the college or to the interests of the student body, may, in the sole discretion of the college, result in dismissal.

The Art Center College of Design, being a private institution, reserves the right to refuse admission or to cancel registration of any student whose conduct, attendance, attitude, or academic standing is, in its judgment, unsatisfactory, and to grant or withhold credits, certificates, degrees, or diplomas. The college further reserves the right to hold four or more samples of a student's work each semester for exhibition purposes.

Photographs of individuals and groups are often taken in Art Center College of Design. Your signature on the enrollment contract acknowledges your willingness to appear in such photographs and releases the Art Center College of Design from any liability resulting from the use of such photographs.

Non-invasive Regional Blood Volume Techniques

Microwave Proposal

Inflight-Biochem - GEMSEC and Perkin Elmer Technique

Body Plethysm. - Photometric Tech.

Metabolic Analysis -

Auto. Blood Counting Tech.

Inflight Sample Handling - Esp. Radioisotopes

Personal TM

Simplify Rebreathing Tech. for Card. Output

Data Compression

Limb Plethysmo. - Helix Gauge (Webb Assoc.)

CO Meas. - New Front end for Mass Spec. or I.R. Techs.

Improved O₂ Sensor

Vigilance Meas.

Karyotyping in Flight

Pulm. Diffus. CAP.

New Endocrine Techs. - Covered in part by GEMSEC

Improved Blood Press.

Card. Output by Radioisotope (RHISA)

RBC Fragil - New Tech. (Meas. Salt Conc.)

Venous Press. - Central & Peripheral

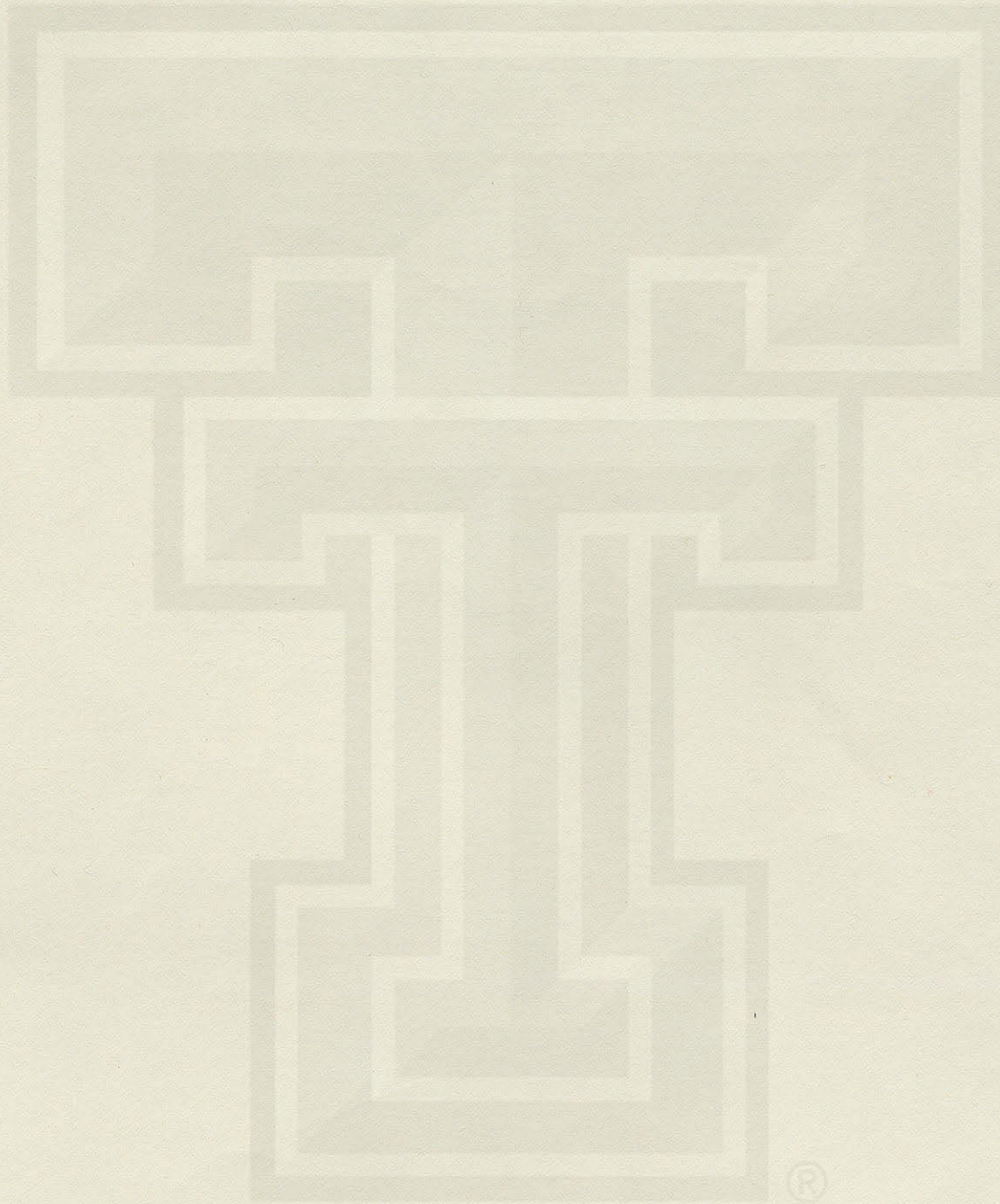
Electrophoresis in flight

Improved Electrodes

Differential Pressure transducers

ETOH TBW Tech.

Radio Immunodiffusion Tech.



®

BR-3

RETIREMENT LUNCHEON

IN HONOR OF

DR. SHERM VINOGRAD

Sherm —
I don't attend many of
these, but I really
miss this one. I'll be on
travel however. E2's staff
meetings seem like a long
time ago. It's been
good to work with
you these many
years. But
Wishes for
a happy
retirement

Please join us in wishing
Sherm Vinograd farewell

WHEN: Friday, April 27th

WHERE: La Strada Restaurant
2514 Jefferson Davis Highway (Route 1, one mile
south of Crystal City)

TIME: 11:30

MENU

- CHOICE OF -

Mannicotti

Canneloni

Lasagne

Veal Parmigiana with Spaghetti

Chicken Cacciatore with Spaghetti

London Broil with two vegetables

All dinners include - rolls/butter, toss salad, coffee, tea

There will also be a CASH BAR

Cost: \$5.50 (includes tax & gratuity)

PLEASE SEE LISA WARDROP, FOB6, ROOM 5117 FOR CONTRIBUTIONS
TOWARDS GIFT

R.S.V.P. AND MONEY NEEDED BY COB APRIL 25, 1979
PLEASE RESPOND TO LISA WARDROP 755-3723



Routing Slip

Mail Code	Name	Action	
SBR-3	Dr. Vinograd	Approval	
		Call me	
		Concurrence	
		File	
		Information	
		Investigate and Advise	
		Note and Forward	
		Note and Return	
		Per Request	
		Per Phone Conversation	
		Recommendation	
		See me	
		Signature	
		Circulate and Destroy	

Name	Tel. No. (or Code) & Ext.
Philip E. Culbertson	58547
Code (or other designation)	Date
M	4/19/79