

252

SATELLITE & MESOMETEOROLOGY RESEARCH PROJECT

*Department of the Geophysical Sciences
The University of Chicago*

A BIBLIOGRAPHY OF THE PUBLICATIONS AND RESEARCH REPORTS OF

TETSUYA T. FUJITA (1920 – 1998)

by

Kazuya Fujita

James W. Partacz

Duane J. Stiegler

and Robert F. Abbey, Jr.

SMRP Research Paper

Number 252
January 2000



A BIBLIOGRAPHY OF THE PUBLICATIONS AND RESEARCH REPORTS OF

TETSUYA T. FUJITA

(1920 - 1998)

by

Kazuya Fujita

*Department of Geological Sciences
Michigan State University
East Lansing, MI 48824-1115*

James W. Partacz
Duane J. Stiegler

*Wind Research Laboratory
Department of Geophysical Sciences
University of Chicago
5734 S. Ellis Avenue
Chicago, IL 60637*

and

Robert F. Abbey, Jr.

*Office of Naval Research
800 N. Quincy Street
Arlington, VA 22217*

SMRP Research Paper 252
January 2000



1. Introduction

This publication is a compendium of publications and reports written by the late Dr. Tetsuya Theodore (“Ted”) Fujita (1920 - 1998; “Mr. Tornado”), Charles E. Merriam Distinguished Service Professor at the University of Chicago. Through his nearly sixty year professional career, Ted authored or co-authored an amazing number of reports outlining new ideas and discoveries from a wide range of fields in meteorology from tornadoes to downbursts, as well as a few in geology.

Shortly after Ted’s passing, we began to assemble a complete set of Ted’s publications so that they could be archived. It became immediately obvious that the number of reports far exceeded what most of us knew about. As we sorted through file cabinets and boxes, more and more reports came to light. The task of compiling an absolutely complete bibliography will, in fact, take years of sifting through contract reports and journals to compile. However, we felt that an appropriate time to make a listing of Ted’s work available would be at the memorial symposium and banquet held at the annual meeting of the American Meteorological Society in January, 2000.

Thus, we have attempted to compile a complete list as possible of publications and reports that Ted authored or co-authored, including unpublished manuscripts. This includes a definitive listing of the technical reports that were known as SMRP (Satellite and Mesometeorology Research Project) Research Papers (later becoming the WRL, or Wind Research laboratory) Papers, and an earlier series which we have named Severe Local Storms Project (SLSP) Reports. The listing was compiled from SMRP and WRL archives, as well as citations in meteorological papers and scanning of Japanese journals. The listing is likely to be complete for publications in the United States, however, some Japanese language papers, especially in the “popular” press, may have been overlooked. Also included are maps and films produced by SMRP and WRL.

The listing of technical reports, especially those solely directed towards funding agencies, is likely to be incomplete. Any additional information would be appreciated. Please send corrections or additions to the senior author. Corrections will be available on the web.

The numbering of SMRP and WRL reports presented some problems. Some numbers were assigned to reports that were never published, while other numbers have been duplicated, particularly in the later years. We have attempted to resolve these conflicts and have renumbered a small number of reports to avoid duplication.

The bibliography consists of several sections. The first consists of a listing of SMRP research papers in report number order. The second section consists SLSP reports, also in report number order. The third section consists formal publications, journal articles, and conference proceedings. The fourth section includes technical reports, corporate reports, and unpublished manuscripts. Only publications on which Ted was an author or co-author are included in sections three and four. Sections five and six list maps and films produced by SMRP, regardless of author.

An author index (excluding Ted, who appears on most of the papers) is provided as section seven.

Publications archives are maintained at the Department of Geological Sciences, Michigan State University (primary archive); Wind Engineering Research Center, Texas Tech University, and the Fujita Memorial Museum in Kitakyushu, Japan. Addresses are given at the end of this introductory section. Copies of publications may be ordered from Texas Tech (U.S. requests) or the Fujita Museum (Japanese requests).

2. Abstracts and Proposals

Ted wrote a very large number of proposals and renewals for funding. Many of these proposals contain information not presented elsewhere. At this time, it is also not possible to produce even a reasonably complete listing, however, we hope to do so at a later date. Ted also published or distributed a large number of abstracts for conference presentations and faculty or organizational seminars. We have not listed these here as it is very difficult to compile an exhaustive list.

3. Storm Data

In early 1981, NOAA decided to terminate publication of Storm Data for financial reasons. Ted argued for its continuance and to edit an “outstanding storms of the month” column. Ted took over the editing of Storm Data in July, 1981, and started the “outstanding storms” column in January, 1982. In August, 1983, Duane Stiegler of SMRP was named the associate editor, and eventually became responsible for obtaining data, editing, writing, and creating the layout as well as the graphs and charts that were published in this section. Duane and Ted continued this through the December, 1989 issue, when it was taken over by others.

4. Photographic Archives

SMRP and WRL maintained an extensive archive of photos, slides, and maps of severe storms and the damage caused by them, as well radar images and related documentation. The vast majority of this material is being archived at the Wind Engineering Research Center at Texas Tech University in Lubbock, Texas. Please contact them for details on how these data may be accessed. Data on mesometeorology, satellite studies, and Japanese typhoon studies will be archived at the Fujita Memorial Museum in Kitakyushu, Japan. Please contact the organizing committee for details.

5. SMRP and WRL

Ted began his research at the University of Chicago in the old Department of Meteorology building at 5727 S. University Avenue. In 1961, the Mesometeorology Project (MP) was established and was housed in a former home at 5736 S. Woodlawn Avenue, next to the old weather service offices. In 1964, with the increased use and analysis of satellite data, the project was renamed the Satellite and Mesometeorology Research Project. In 1969, the research laboratory was moved to the 4th floor of the new Hinds Geophysical Sciences building at 5734 S. Ellis Avenue. In 1988, Ted renamed SMRP as the Wind Research Laboratory (WRL). At its peak, the WRL occupied nearly a half of the 4th floor and included not only offices, but a machine shop and an extensive photographic facility. The WRL also included the famous “tornado machine” in room 484. Sadly, this machine was dismantled in the early 1990s and no records of it appear to remain. In 1991, Ted produced a small booklet with photographs of the WRL. We have appended this booklet to this

report. The Wind Research Lab was formally closed on October 1, 1999, eleven months after Ted's passing.

6. Acknowledgments

We thank all of Ted's friends and colleagues who took part in various aspects of his research and the government agencies and private companies that supported his research. Special thanks are due to the National Science Foundation, the US Air Force, the Office of Naval Research, NASA, the U.S Weather Bureau, the US Army Signal Corps, and Japan Air Lines for their generous support over Ted's research career.

Compilation and publication of this report was supported by Michigan State University and the Office of Naval Research.

7. Contact Addresses

Corrections and additions to this bibliography.

Kazuya Fujita
Department of Geological Sciences
Michigan State University
East Lansing, MI 48824-1115

Copies of reprints or archived severe storms data.

April MacDowell
Wind Engineering Research Center
Box 41023
Lubbock, TX 79409-1023

Copies of reprints or archived satellite and mesometeorology data

Dr. Tetsuya Fujita Memorial Museum Preparatory Committee
The Kitakyushu City Citizen's Network for a Better Community
7-7 Edamitsu Honmachi Yahata-Higashi-Ku
Kitakyushu City
Japan



I. SATELLITE AND MESOMETEOROLOGY RESEARCH PROJECT REPORTS

These reports were issued with the “classic” blue covers and bound with staples and blue tape. Several hundred copies of each report were produced. The first reports were from the “Mesometeorology Project” (MP, 1-28). The later reports were renamed the “Wind Research Laboratory” (WRL, 222-250) reports and issued with yellow covers; less than 50 copies of these reports were usually produced (except for 249 and 250). The last reports were hand bound with cloth tape and were issued in quantities from ten to twenty. SMRP/WRL numbers were assigned to many publications that only appeared in formal print. However, for some of these, a very small number of copies (5 – 10) were mocked up with the blue covers and distributed as preprints or reprints were printed with new page numbers and the source information moved to the cover or title page, or rewritten on the first page. In this listing, reference is made reprints only if no “official” SMRP report exists. Entries in italics were assigned but never officially published.

Mesometeorology Project (1961 – 1963)

- 1 Brown, R. A., and Fujita, T., Report on the Chicago tornado of March 4, 1961, 14 pp. [June, 1961]
- 2 Fujita, T., Index to the NSSP surface network, 34 pp. [June, 1961]
- 3 Fujita, T., Outline of a technique for precise rectification of satellite cloud photographs, 25 pp. [November, 1961]
- 4 Brown, H. A., Horizontal structure of mountain winds, 46 pp. [November, 1961] (reprinted from SLSP 22D)
- 5 Goldman, J. L., An investigation of developmental processes of the wake depression through excess pressure analysis of nocturnal showers, 26 pp. [November, 1961]
- 6 Styber, K. A., Precipitation in the 1960 Flagstaff mesometeorological network, 16 pp. [December, 1961] (first issued as SLSP 42)
- 7¹ *Fujita, T., On a method of single and dual-image photogrammetry of panoramic aerial photographs.*
- 8 Fujita, T., A review of researches on analytical mesometeorology, 114 pp. [February, 1962]
- 9 Fujita, T., Ushijima, T., Hass, W. A., and Dellert, G. T., Jr., Meteorological interpretation of convective neph systems in TIROS cloud photographs, 34 pp. [April, 1962]
- 10 Goldman, J. L., Study of the development of prefrontal squall-systems using NSSP network data, 42 pp. [July, 1962]
- 11 Fujita, T., Analysis of selected aircraft data from NSSP operation, 1962, 29 pp. [August, 1962]
- 12 Ushijima, T., Study of a long condensation trail photographed by TIROS I, 16 pp. [August, 1962]
- 13 Fujita, T., 1963. A technique for precise analysis for satellite data; volume I – Photogrammetry: U.S. Department of Commerce, Weather Bureau, Meteorological Satellite Laboratory Report No. 14, 106 pp. [September, 1962] (not published as a separate SMRP report)
- 14 Ninomiya, K., Investigation of a summer jet stream using TIROS and aerological data, 26 pp. [September, 1962]

¹ No manuscripts exist.

- 15 Fujita, T., Outline of a theory and examples for precise analysis of satellite radiation data, 35 pp. [February, 1963]
- 16 Fujita, T., and Arnold, J., Preliminary result of analysis of the cumulonimbus cloud of April 21, 1961, 16 pp. [February, 1963]
- 17 Fujita, T., A technique for precise analysis of satellite photographs, 50 pp. [April, 1963]
- 18 Larsen, S. H. H., Fujita, T., and Fletcher, W. L., Evaluation of limb darkening from TIROS III radiation data, 19 pp. [August, 1963]
- 19 Pedersen, F., and Fujita, T., Synoptic interpretation of TIROS III measurements of infrared radiation, 39 pp. [October, 1963]
- 20 Larsen, S. H. H., Fujita, T., and Fletcher, W. L., TIROS III measurements of terrestrial radiation and reflected and scattered solar radiation, 11 pp. [October, 1963]
- 21 Brown, H. A., On the low-level structure of a squall line, 37 pp. [October, 1963] (reprinted from SLSP 40)
- 22 Bonner, W. D., Thunderstorms and the low-level jet, 23 pp. [October, 1963] (reprinted from SLSP 40)
- 23 Brown, H. A., The mesoanalysis of an organized convective system, 34 pp. [October, 1963] (reprinted from SLSP 40)
- 24 Goldman, J. L., and Fujita, T., Preliminary radar and photogrammetric study of the Illinois tornadoes of April 17 and 22, 1963, 19 pp. [October, 1963]
- 25 Fujita, T., Use of TIROS pictures for studies of the internal structure of tropical storms; and Ushijima, T., Rectified pictures from TIROS I orbit 125, R/O 128, 25 pp. [October, 1963]
- 26 Bonner, W., An experiment in the determination of geostrophic and isallobaric winds from NSSP pressure data. 26 pp. [November, 1963]
- 27 Fujita, T., Proposed mechanism of hook echo formation; and Fujita, T., and Stuhmer, R., A preliminary mesosynoptic analysis of tornado cyclone case of May 26, 1963. 35 pp. [November, 1963]
- 28 Fujita, T., and Arnold, J., The decaying stage of hurricane Anna of July 1961 as portrayed by TIROS cloud photographs and infra-red radiation from the top of the storm. 13 pp. [November, 1963]

Satellite and Mesometeorology Research Project (1964 – 1988)

- 29 Fujita, T., A technique for precise analysis of satellite data. Volume II - radiation analysis, 21 pp. [June, 1964] (pagination continued from SMRP 13)
- 30 Fujita, T., Evaluation of errors in the graphical rectification of satellite photographs. 23 pp. [July, 1964]
- 31 Bonner, W. D., Tables of scan nadir and horizontal angles. 51 pp. [July, 1964]
- 32 Arnold, J. E., A simplified grid technique for determining scan lines generated by the TIROS scanning radiometer. 18 pp. [May, 1965]
- 33 Bradbury, D. L., and Fujita, T., A study of cumulus clouds over the Flagstaff research network with the use of U-2 photographs. 25 pp. [July, 1964]
- 34 Fujita, T., The scanning printer and its application to detailed analysis of satellite radiation data. 29 pp. [July, 1964]
- 35 Rabbe, Å., and Fujita, T., Synoptic study of cold air outbreak over the Mediterranean using satellite photographs and radiation data. 33 pp. [August, 1964]

- 36 Fujita, T., Accurate calibration of doppler winds for their use in the computation of mesoscale wind fields. 37 pp. [April, 1965]
- 37 Fujita, T., and Bradbury, D. L., Proposed operation of instrumented aircraft for research on moisture fronts and wake depressions. 31 pp. [December, 1964]
- 38 Bonner, W. D., Statistical and kinematical properties of the low-level jet stream. 54 pp. [January, 1965]
- 39 Goldman, J. L., The Illinois tornadoes of 17 and 22 April, 1963. 80 pp. [January, 1965]
- 40 Fujita, T., and Bandeen, W., Resolution of the Nimbus high resolution infrared radiometer, 18 pp. [February, 1965]
- 41 Brown, R. A., On the determination of the exchange coefficients in convective clouds. 7 pp. [February, 1965]
- 42 Brown, R. A., and Fujita, T., A study of factors contributing to dissipation of energy in a developing cumulonimbus. 65 pp. [May, 1965]
- 43 Bonner, W. D., A program for computer gridding of satellite photographs for mesoscale research. 31 pp. [June, 1965]
- 44 Reap, R. M., Comparison of grassland surface temperatures measured by TIROS VII and airborne radiometers under clear sky and cirriform cloud conditions. 35 pp. [July, 1965]
- 45 Reap, R. M., and Fujita, T., Death Valley temperature analysis utilizing Nimbus I infrared data and ground-based measurements. 19 pp. [August, 1965]
- 46 Brown, R. A., On the "thunderstorm - high controversy". 26 pp. [December, 1965]
- 47 Nasta, R., Application of precise Fujita method on Nimbus I photo gridding. 15 pp. [January, 1966]
- 48 Fujita, T., and Grandoso, H., A proposed method of estimating cloud-top temperature, cloud covers, emissivity, and cloudiness from short- and long-wavelength radiation data obtained by medium-resolution scanning radiometers. 48 pp. [November, 1967]
- 49 Fujita, T., Aerial survey of the Palm Sunday tornadoes of April 11, 1965. 35 pp. [January, 1966]
- 50 Fujita, T., Early stage of tornado development as revealed by satellite photographs. 15 pp. [January, 1966]
- 51 Bradbury, D. L., and Fujita, T., Features and motions of radar echoes on Palm Sunday, 1965. 23 pp. [June, 1966]
- 52 Fujita, T., and Bradbury, D. L., Stability and differential advection associated with tornado development. 17 pp. [March, 1966]
- 53 Fujita, T., Estimated wind speeds of the Palm Sunday tornadoes. 25 pp. [April, 1967]
- 54 Brown, R. A., On the determination of exchange coefficients: Part II - rotating and nonrotating convective currents. 30 pp. [January, 1966]
- 55 Tsuchiya, K., and Fujita, T., A satellite meteorological study of evaporation and cloud formation over the western Pacific under the influence of the winter monsoon. 31 pp. [September, 1966]
- 56 Fujita, T., and Tsuchiya, K., A proposed mechanism of snowstorm mesojets over Japan under the influence of the winter monsoon. 22 pp. [February, 1966]
- 57 Lyons, W. A., Some effects of Lake Michigan upon squall lines and summertime convection. 22 pp. [May, 1966]
- 58 Rabbe, Å., Angular dependence of albedo from stratiform clouds as measured by TIROS IV scanning radiometers. 19 pp. [June, 1966]

- 59 Fujita, T., Black, P. G., and Loesch, A. G., Use of wet-beam doppler winds in the determination of the vertical velocity of raindrops inside hurricane rainbands. 32 pp. [April, 1966]
- 60 Fujita, T., Izawa, T., Watanabe, K., and Imai, I., A model of typhoons accompanied by inner and outer rainbands. 30 pp. [March, 1966]
- 61 Brown, R. A., Three-dimensional growth characteristics of an orographic thunderstorm system. 45 pp. [May, 1966]
- 62 Fujita, T., and Grandoso, H., Split of a thunderstorm into anticyclonic and cyclonic storms and their motion as determined from numerical model experiments. 42 pp. [October, 1966]
- 63 Reap, R. M., Preliminary investigation of peripheral subsidence associated with hurricane outflow. 19 pp. [July, 1966]
- 64 Arnold, J. E., The time change of cloud features in hurricane Anna, 1961, from easterly wave stage to hurricane dissipation. 39 pp. [January, 1967]
- 65 Arnold, J. E., Easterly wave activity over Africa and in the Atlantic with a note on the intertropical convergence zone during early July 1961. 23 pp. [December, 1966]
- 66 Lyons, W. A., and Fujita, T., Mesoscale motions in oceanic stratus as revealed by satellite data. 23 pp. [December, 1966]
- 67 Fujita, T., Mesoscale aspects of orographic influences on flow and precipitation patterns. 19 pp. [June, 1967]
- 68 Arakawa, H., Watanabe, K., Tsuchiya, K., and Fujita, T., A mesometeorological study of a subtropical mesocyclone. 28 pp. [May, 1968]
- 69 Fujita, T., Bradbury, D. L., and Black, P. G., Estimation of tornado wind speed from characteristic ground marks. 19 pp. [October, 1967]
- 70 Bradbury, D. L., and Fujita, T., Computation of height and velocity of clouds from dual, whole-sky, time-lapse picture sequences. 17 pp. [March, 1968]
- 71 Fujita, T., Bradbury, D. L., Murino, C., and Hull, L., A study of mesoscale cloud motions computed from ATS-1 and terrestrial photographs. 25 pp. [March, 1968]
- 72 Fujita, T., Baralt, G., and Tsuchiya, K., Aerial measurement of radiation temperatures over Mt. Fuji and Tokyo areas and their application to the determination of ground- and water-surface temperatures. 32 pp. [March, 1968]
- 73 Mendez, R., Angular dependence of reflected solar radiation from Sahara measured by TIROS VII in a torquing maneuver. 17 pp. [June, 1968]
- 74 Lyons, W. A., and Wilson, J. W., The control of summertime cumuli and thunderstorms by Lake Michigan during non-lake breeze conditions. 32 pp. [June, 1968]
- 75 Bunting, J., and Lamb, D., Heavy snow in the Chicago area as revealed by satellite pictures. 49 pp. [July, 1968]
- 76 Izawa, T., A model of typhoons with outflow and subsidence layers. 26 pp. [January, 1969]
- 77 Madden, R. A., Yaw corrections for accurate gridding of Nimbus HRIR data. 26 pp. [January, 1969]
- 78 Fujita, T. T., Watanabe, K., and Izawa, T., Formation and structure of equatorial anticyclones caused by large-scale cross equatorial flows determined by ATS-I photographs. 37 pp. [January, 1969]
- 79 Fujita, T. T., and Bradbury, D. L., Determination of mass outflow from a thunderstorm complex using ATS III pictures. 15 pp. [April, 1969]
- 80 Bradbury, D. L., Development of a dry line as shown by ATS cloud photography and verified by radar and conventional aerological data. 16 pp. [November, 1969]

- 81 Ninomiya, K., Dynamical analysis of outflow from tornado-producing thunderstorms as revealed by ATS III pictures. 43 pp. [December, 1969]
- 82² Fujita, T. T., *Computation of cloud heights from shadow positions through single image photogrammetry of Apollo pictures.*
- 83 Gentry, R. C., Fujita, T. T., and Sheets, R. C., Aircraft, spacecraft, satellite, and radar observations of hurricane Gladys, 1968. 24 pp. [May, 1970]
- 84 Fujita, T. T., Basic problems on cloud identification related to the design of SMS - GOES spin scan radiometers. 33 pp. [March, 1970]
- 85 Ninomiya, K., Mesoscale modification of synoptic situations over the area of thunderstorms' development as revealed by ATS III and aerological data. 41 pp. [April, 1970]
- 86 Fujita, T. T., Bradbury, D. L., and Van Thullenar, C. F., Palm Sunday tornadoes of April 11, 1965. [April, 1970]
- 87 Tecson, J. J., Patterns of equivalent blackbody temperature and reflectance of model clouds computed by changing radiometers' field of view. 27 pp. [May, 1970]
- 88³ Fujita, T. T., Lubbock tornadoes of 11 May 1970. 23 pp. [July, 1970]
- 89⁴ Fujita, T. T., Estimate of areal probability of tornadoes from inflationary reporting of their frequencies. 23 pp. [October, 1970]
- 90 Fujita, T. T., Application of ATS III photographs for determination of dust and cloud velocities over the northern tropical Atlantic. 17 pp. [December, 1970]
- 91 Fujita, T. T., Proposed characterization of tornadoes and hurricanes by area and intensity, 42 pp. [February, 1971]
- 92 Fujita, T. T., Estimate of maximum wind speeds of tornadoes in three northwestern states, 27 pp. [December, 1970]
- 93 Fujita, T. T., and Black, P. G., In- and outflow field of hurricane Debbie as revealed by echo and cloud velocities from airborne radar and ATS-III pictures, 6 pp. [November, 1970]
- 94 Tecson, J. J., Characterization of 1965 tornadoes by their area and intensity, 22 pp. [February, 1972]
- 95 Lyons, R. D., Computation of height and velocity of clouds over Barbados from a whole-sky camera network, 18 pp. [August, 1971]
- 96 Bradbury, D. L., The filling over land of hurricane Camille, August 17-18, 1969, 25 pp. [August, 1971]
- 97⁵ Fujita, T. T., Tornado occurrences related to overshooting cloud-top heights as determined from ATS pictures, 32 pp. [April, 1972]
- 98⁶ Fujita, T. T., Experimental classification of tornadoes in F P P scale, 15 pp. [May, 1973]
- 99 Fujita, T. T., and Tecson, J. J., Preliminary results of tornado watch experiment 1971, 16 pp. [October, 1971]
- 100 Fujita, T. T., F-scale classification of 1971 tornadoes, 16 pp. [April, 1972]

² Partially complete typescript with figures exists.

³ SMRP 88 uses the old covers labeled "Mesometeorology Project."

⁴ Originally to be co-authored with I. B. Wall and W. A. Williams.

⁵ Available in two printings, single sided, and double sided with a fold-over cover. This is the first time the fold-over cover was used.

⁶ All copies are without covers and are attached to a 2 page cover letter dated "May 10, 1973 (revision of May 1, 1973 letter)".

- 101 Fujita, T. T., Watanabe, K., Tsuchiya, K., and Shimada, M., Typhoon-associated tornadoes in Japan and new evidence of suction vortices in a tornado near Tokyo, 42 pp. [February, 1972]
- 102 Fujita, T. T., Proposed mechanism of suction spots accompanied by tornadoes, 14 pp. [October, 1971]
- 103 Shitara, H., A climatological study of cloud formation over the Atlantic during winter monsoon, 24 pp. [March, 1972]
- 104⁷ Pearl, E. W., *Statistical analysis of 1971 tornadoes*, 14 pp. [July, 1972]
- 105 Fujita, T. T., Estimate of maximum windspeeds of tornadoes in southernmost Rockies, 47 pp. [June, 1972]
- 106 Fujita, T. T., Use of ATS pictures in hurricane modification, 31 pp. [August, 1972]
- 107 Fujita, T. T., Analisis tropical en mesoscala sobre Latino America, 30 pp. [November, 1972]
- 108 Fujita, T. T., Tornadoes around the world: *Weatherwise*, v. 26(2), p. 56-83. [published April, 1973] (not published as a separate SMRP report)
- 109 Balogun, E. E., A study of satellite-observed cloud patterns of tropical cyclones, 103 pp.
- 110 Chang, Y.-M., Tecson, J. J., Fujita, T. T., METRACOM system of cloud-velocity determination from geostationary satellite pictures, 29 pp. [July, 1973]
- 111 Fujita, T. T., Proposed mechanism of tornado formation from rotating thunderstorm: Preprints, 8th Conference on Severe Local Storms, Denver. American Meteorological Society, Boston, p. 191-196. [published October, 1973] (not published as a separate SMRP report)
- 112 Pearl, E. W., Joliet tornado of April 6, 1972, 13 pp. [June, 1973]
- 113 Fujita, T. T., and Pearson, A. D., Results of F P P classification of 1971 and 1972 tornadoes: Preprints, 8th Conference on Severe Local Storms, Denver. American Meteorological Society, Boston, p. 142-145. [October, 1973] (not published as a separate SMRP report)
- 114 Fujita, T. T., Pearl, E. W., and Shenk, W., Satellite-tracked cumulus velocities, 20 pp. [August, 1973]
- 115 Fujita, T. T., and Fujita, K., General and local circulation of mantle and atmosphere, towards prediction of earthquakes and tornadoes, 19 pp. [October, 1973]
- 116 Tecson, J. J., Chang, Y.-M., and Fujita, T. T., Cloud motion field of hurricane Ginger during the seeding period as determined by the METRACOM system, 22 pp. [May, 1973]
- 117⁸ Fujita, T. T., Overshooting thunderheads observed from ATS and learjet, 29 pp. [January, 1974]
- 118 Fujita, T. T., Thermal and dynamical features of a thunderstorm with a tilted axis of rotation, 15 pp. [December, 1973]
- 119⁹ Pearl, E. W., Characteristics of anvil-top associated with the Poplar Bluff tornado of May 7, 1973, 12 pp. [January, 1974]
- 120 Fujita, T. T., Jumbo tornado outbreak of 3 April 1974: *Weatherwise*, v. 27(3), p. 116-126. [published June, 1974] (not published as a separate SMRP report)
- 121 Chang, Y.-M., and Tecson, J. J., Cloud velocities over the North Atlantic computed from

⁷ Draft manuscript exists.

⁸ Originally numbered SMRP 119.

⁹ Originally numbered SMRP 120.

- ATS picture sequences, 39 pp. [June, 1974]
- 122 Chang, Y.-M., Analysis of anvil growth from ATS pictures, 15 pp. [July, 1974]
- 123¹⁰ Pearl, E. W., *Evaluation of tornado risk based on F-scale distribution*, 6 pp. [September, 1974].
- 124 Fujita, T. T., and Forbes, G. S., Superoutbreak tornadoes of April 3, 1974 as seen in ATS pictures: Preprints, 6th Conference on Aerospace and Aeronautical Meteorology, El Paso. American Meteorological Society, Boston, p. 165-172. [November, 1974] (not published as a separate SMRP report)
- 125 Fujita, T. T., and Tecson, J. J., A kinematic analysis of tropical storm based on ATS cloud motions, 20 pp. [August, 1974]
- 126 Umenhofer, T. A., Overshooting top behavior of three tornado-producing thunderstorms: Preprints, 9th Conference on Severe Local Storms, Norman. American Meteorological Society, Boston, p. 96-99. [October, 1975] (not published as a separate SMRP report)
- 127 Fujita, T. T., New evidence from April 3-4, 1974 tornadoes, 8 pp. [October, 1975]
- 128 Fujita, T. T., Pearson, A., and Ludlum, D. M., Long-term fluctuation of tornado activities, 7 pp. [October, 1975]
- 129 Forbes, G. S., Relationship between tornadoes and hook echoes on April 3, 1974: Preprints, 9th Conference on Severe Local Storms, Norman. American Meteorological Society, Boston, p. 280-285. [October, 1975] (not published as a separate SMRP report)
- 130 Pearl, E. W., Shenk, W. E., and Skillman, W., Cloud-top parameters - a hail indicator: Preprints, 9th Conference on Severe Local Storms, Norman. American Meteorological Society, Boston, p. 464-467. [October, 1975] (not published as a separate SMRP report)
- 131 Fujita, T. T., Detection of severe storms by satellites: Preprints, 3rd Symposium on Meteorological Observations and Instrumentation, Washington. American Meteorological Society, Boston, p. 5-9. [February, 1975] (not published as a separate SMRP report)
- 132 Forbes, G. S., and Umenhofer, T. A., The Gothenburg tornado family of June 18, 1975, 36 pp. [October, 1976]
- 133^{1,11} Fujita, T. T., *Analysis and use of meteorological data, an outline prepared for UN/WMO training seminar in Nairobi, Kenya*.
- 134 Tecson, J. J., and Balogun, E. E., A profile of an easterly wave from SMS photographs and GATE ship reports, 18 pp. [October, 1975]
- 135¹² Pearl, E. W., *Descriptions of mesoscale systems*, 14 pp. [December, 1975]
- 136 Tecson, J. J., and Fujita, T. T., Cloud-motion vectors over the GATE area computed by McIDAS and METRACOM methods, 23 pp. [December, 1975]
- 137¹³ Fujita, T. T., Spearhead echo and downburst near the approach end of a John F. Kennedy Airport runway, New York City, 51 pp. [March, 1976; 2nd printing September, 1976]
- 138 Abbey, R. F., Jr., and Fujita, T. T., Use of tornado path lengths and gradations of damage to assess tornado intensity probabilities. Preprints, 9th Conference on Severe Local Storms, Norman. American Meteorological Society, Boston, p. 286-293. [October, 1975] (not published as a separate SMRP report)

¹⁰ Manuscript, with figures exists.

¹¹ Ted presented sessions 11 – 16 at this meeting entitled “Clouds in Motion” and sessions 26-28 (26 co-authored with K. Tsuchiya, “West African Squall Lines”, 27 – “East African Mountain Convection”, and 28 – “Dust Storms”). Some written materials may have been prepared.

¹² Manuscript, without figures, exists.

¹³ This report is unique in that it is the only one with two differently dated printings.

- 139¹⁴ Fujita, T. T., Forbes, G. S., and Umenhofer, T. A., Close-up view of 20 March 1976 tornadoes: sinking cloud tops to suction vortices: *Weatherwise*, v. 29(3), p. 117-131, 145. [published June, 1976] (not published as a separate SMRP report)
- 140 Fujita, T. T., ed., Photogrammetric analysis of tornadoes, 46 pp. [June, 1976] (preprint version of presentation at Symposium on Tornadoes, Texas Tech University)
- a) Fujita, T. T., and Pearson, A. D., Glossary of whirlwinds, p. 3-5.
- b) Fujita, T. T., Forbes, G. S., Umenhofer, T. A., Pearl, E. W., and Tecson, J. J., Parameters for computing windspeeds, p. 6-10.
- c) Fujita, T. T., and Forbes, G. S., Three scales of motion involving tornadoes, p. 11-15.
- d) Forbes, G.S., Photogrammetric characteristics of the Parker Tornado of April 3, 1974, p. 16-35.
- e) Fujita, T. T., History of suction vortices, p. 36-46.
- 141 Fujita, T. T., Old and new concept of tornadoes: Preprint from ASCE Annual Convention and Exposition, Preprint 2784, 10 pp. [September, 1976] (not published as a separate SMRP report)
- 142 Fujita, T. T., Graphic examples of tornadoes: *Bulletin of the American Meteorological Society*, v. 57, p. 401-412. [published April, 1976] (not published as a separate SMRP report)
- 143¹⁵ Pearl, E. W., Feeder clouds associated with tornado-producing mesocyclone of March 26, 1976, 18 pp. [October, 1976]
- 144^{1,16} *Argonne-Lemont tornado of June 13, 1976, 17 pp. [1977]*
- 145 Fujita, T. T., and Caracena, F., An analysis of three weather-related aircraft accidents, 40 pp. [April, 1977]
- 146 Fujita, T. T., Anticyclonic tornadoes, 14 pp. [April, 1977] (reprinted from *Weatherwise*, v. 30(2), April, 1977)
- 147 Fujita, T. T., and Byers, H. R., Spearhead echo and downburst in the crash of an airliner: *Monthly Weather Review*, v. 105, p. 129-146. [published February, 1977] (not published as a separate SMRP report)
- 148 Fujita, T. T., and Hjelmfelt, M. R., and Changnon, S. A., Mesoanalysis of record Chicago rainstorm using radar, satellite, and raingauge data. Preprints, 10th Conference on Severe Local Storms, Omaha. American Meteorological Society, Boston, p. 65-72 [October, 1977] (not published as a separate SMRP report)
- 149 Umenhofer, T. A., Fujita, T. T., and Dundas, R., Great Bend tornadoes of August 30, 1974. Preprints, 10th Conference on Severe Local Storms, Omaha. American Meteorological Society, Boston, p. 457-462 [October, 1977] (not published as a separate SMRP report)
- 150 Forbes, G. S., Thunderstorm-scale variations of echoes associated with left-turn tornado families. Preprints, 10th Conference on Severe Local Storms, Omaha. American Meteorological Society, Boston, p. 497-504 [October, 1977] (not published as a separate SMRP report)
- 151 Tecson, J. J., Umenhofer, T. A., and Fujita, T. T., Thunderstorm-associated cloud motions as computed from 5-minute SMS pictures. Preprints, 10th Conference on Severe Local Storms, Omaha. American Meteorological Society, Boston, p. 22-29 [October, 1977] (not

¹⁴ A 20 page mock-up with pasted in figures dated May, 1976, exists.

¹⁵ Initially entitled "Flanking Cell Merger in the Tornadic Thunderstorm of March 26, 1976"

¹⁶ Manuscript may exist.

- published as a separate SMRP report)
- 152¹⁷ Fujita, T. T., and Caracena, F., Common denominator of three weather-related aircraft accidents. Preprints, 10th Conference on Severe Local Storms, Omaha. American Meteorological Society, Boston, p. 135-142 [October, 1977] (not published as a separate SMRP report)
- 153¹⁸ Fujita, T. T., Tornado structure for engineering applications with design-basis tornado model (DBT 77). Report to Argonne National Laboratory, 111 pp. [August, 1977] (not published as a separate SMRP report)
- 154¹⁹ Tecson, J. J., and Fujita, T. T., *A method of population correction applicable to DAPPLE tornado data*, 16 pp. [February, 1978]
- 155 Fujita, T. T., A site-specific study of wind and tornado probabilities at the WIPP site in southwest New Mexico, 43 pp. [February, 1978]
- 156 Fujita, T. T., Manual of downburst identification for project NIMROD, 104 pp. [May, 1978]
- 157 Fujita, T. T., Chicago Rainstorm. Preprint from NASA Conference Publication 2029, 3rd NASA Administrative Wx and Climate Program Science Review, p. 17-21. [November, 1977]
- 158 Fujita, T. T., and Tecson, J. J., Mesoscale wake clouds in Skylab photographs: Skylab Explores the Earth, NASA SP-380, p. 463-477. [1977] (not published as a separate SMRP report)
- 159 Fujita, T. T., Wind shear at Dulles Airport on 18 May 1977, 19 pp. [February, 1978]
- 160 Balogun, E. E., A kinematic investigation of the influence of anvil air flow over convective neph systems on high-level horizontal flow, 18 pp. [July, 1977]
- 161 Forbes, G. S., and Wakimoto, R. M., Downbursts and tornadoes of 6 August 1977 near Springfield, Illinois, 50 pp. [November, 1978]
- 162 Fujita, T. T., Aerial survey of Grand Gulf plant and vicinity after the April 17, 1978 tornado, 18 pp. [May, 1978]
- 163 Bedard, A. J., Jr., and Fujita, T. T., An omnidirectional, tilt insensitive wind speed threshold detector. Preprints, 4th Symposium on Meteorological Observations and Instrumentation, Denver. American Meteorological Society, Boston, p. 83-86. [April, 1978] (not published as a separate SMRP report)
- 164¹ *Intensity and path length of U.S. tornado, 1916-1977*
- 165²⁰ Fujita, T. T., Workbook of tornadoes and high winds for engineering applications, 142 pp. [September, 1978]
- 166²¹ *Fujita, T. T., Tentative summary of Tokyo storm of Feb. 28, 1978, 5 pp.*
- 167 Forbes, G. S., The Cabot, Arkansas tornado of March 29, 1978, 33 pp. [August, 1978]
- 168 Stiegler, D. J., Study of a splitting anvil over Iowa on May 15, 1977, using 3-minute SMS and Lear Jet pictures. 26 pp. [October, 1980]
- 169 Fujita, T. T., Preliminary report of the Bossier City tornado of December 3, 1978, 33 pp. [January, 1979]

¹⁷ See also SMRP 145.

¹⁸ Submitted to Argonne National Laboratories and NRC but not formally issued as a SMRP report although the number was assigned.

¹⁹ Complete draft exists, but is marked not published.

²⁰ A preliminary version was issued at the July, 1978, workshop. See under technical reports.

²¹ Manuscript, primarily figures, exists.

- 170 Fujita, T. T., Wind loading and missile generation in tornadoes, in Brebbia, C. A., Gould, P. L., and Munro, J., eds., *Environmental Forces on Engineering Structures*. Pentech Press, London, p. 165-179. [July, 1979] (not published as a separate SMRP report)
- 171 Fujita, T. T., Objectives, operation, and results of project NIMROD: Reprints, 11th Conference on Severe Local Storms, Kansas City. American Meteorological Society, Boston, p. 259-266. [October, 1979] (not published as a separate SMRP report)
- 172 Forbes, G., Observations of relationships between tornado structure, underlying surface, and tornado appearance: Reprints, 11th Conference on Severe Local Storms, Kansas City. American Meteorological Society, Boston, p. 351-356. [October, 1979] (not published as a separate SMRP report)
- 173 Wilson, J. W., and Fujita, T. T., Vertical cross section through a rotating thunderstorm by doppler radar: Reprints, 11th Conference on Severe Local Storms, Kansas City. American Meteorological Society, Boston, p. 447-452. [October, 1979] (not published as a separate SMRP report)
- 174 Tecson, J. J., Fujita, T. T., and Abbey, R. F., Jr., Statistics of U.S. tornadoes based on the DAPPLE (Damage Area Per Path Length) tornado tape: Reprints, 11th Conference on Severe Local Storms, Kansas City. American Meteorological Society, Boston, p. 227-234. [October, 1979] (not published as a separate SMRP report)
- 175 Stiegler, D. J., Fujita, T. T., and Wakimoto, R. M., The effect of side lobes upon measured doppler velocities in weak echo regions. Reprints, 11th Conference on Severe Local Storms, Kansas City. American Meteorological Society, Boston, p. 509-514. [October, 1979] (not published as a separate SMRP report)
- 176 McGurk, P. D., Rawinsonde detection of stratospheric moisture in the vicinity of thunderstorm tops. 18 pp. [June, 1979]
- 177 Abbey, R. F., Jr., and Fujita, T. T., The DAPPLE method for computing tornado hazard probabilities: refinements and theoretical considerations: Reprints, 11th Conference on Severe Local Storms, Kansas City. American Meteorological Society, Boston, p. 241-248. [October, 1979] (not published as a separate SMRP report)
- 178 Fujita, T. T., Tecson, J. J., and Levine, N. J., A site-specific evaluation of tornado and high-wind risks at West Valley Site, New York, 21 pp. [November, 1979]
- 179 Fujita, T. T., Downbursts and microbursts -- an aviation hazard: Reprints, 19th Conference on Radar Meteorology, Miami. American Meteorological Society, Boston, p. 94-101. [April, 1980] (not published as a separate SMRP report)
- 180 Fujita, T. T., Wakimoto, R. M., and Stiegler, D. J., Mesoscale damage patterns of hurricane Frederic in relation to enhanced SMS imagery. Reprints, 19th Conference on Radar Meteorology, Miami. American Meteorological Society, Boston, p. 48-55. [April, 1980] (not published as a separate SMRP report)
- 181 Fujita, T. T., Meso-scale structure of downbursts depicted by doppler radar, 19 pp. [April, 1980]
- 182²² Fujita, T. T., *A method of computing hazard probabilities of high winds and tornadoes*, 29 pp. [January, 1980]
- 183 Fujita, T. T., Diabatic analysis, a new method for predicting tornado outbreaks, 15 pp. [June, 1980]

²² Ted intended to modify the appendices and tables he used for several hazard studies (see Technical Reports and Corporate Reports). A semi-edited revision exists.

- 184²³ Fujita, T. T., and Wakimoto, R. M., Five scales of airflow associated with a series of downbursts on 16 July, 1980: *Monthly Weather Review*, v. 109, p. 1438-1456. [published July, 1981] (not published as a separate SMRP report)
- 185²⁴ Fujita, T. T., Tornado and high wind hazards at Lawrence Berkeley Laboratory and Stanford Linear Accelerator sites in California. Report 5 for LLNL, 40 pp. [September, 1979] (not published as a separate SMRP report)
- 186 Fujita, T. T., Tornado and high wind hazards at Livermore Laboratory, California. Report 4 for LLNL, 31 pp. [September, 1979] (not published as a separate SMRP report)
- 187²⁵ Fujita, T. T., and Wakimoto, R. M., Grand Island tornadoes of 3 June 1980 depicted by satellite, radar, and damage photographs, 18 pp. [April, 1981]
- 188 Fujita, T. T., Microbursts as an aviation wind shear hazard: AIAA 19th Aerospace Sciences Meeting, St. Louis. American Institute of Aeronautics and Astronautics, New York, 9 pp. [January, 1981] (not published as a separate SMRP report)
- 189 Fujita, T. T., In search of mesoscale wind fields in landfalling hurricanes. 15 pp. [December, 1980]
- 190 Fujita, T. T., Tornadoes and downbursts in the context of generalized planetary scales: *Journal of the Atmospheric Sciences*, v. 38, p. 1511-1534. [published August, 1981] (not published as a separate SMRP report)
- 191 Fujita, T. T., Mesoscale aspects of convective storms. 8 pp. [August, 1981]
- 192 Fujita, T. T., Principle of stereoscopic height computations and their applications to stratospheric cirrus over severe thunderstorms: *Journal of the Meteorological Society of Japan*, v. 60(1), p. 355-368 [submitted September, 1981; published February, 1982] (not published as a separate SMRP report)
- 193²⁶ Collected papers for the 12th conference on severe local storms: Preprints, 12th Conference on Severe Local Storms, San Antonio. American Meteorological Society, Boston. [September, 1981; preprint volume published January, 1982] (not published as a separate SMRP report)
- a) Tecson, J. J., Fujita, T. T., and Abbey, R. F., Jr., Climatological mapping of US tornadoes during 1916-1980. Preprint, p. 38-41.
 - b) Fujita, T. T., Infrared, stereoheight, cloud motion, and radar echo analysis of sesame-day thunderstorms. Preprint, p. 213-216.
 - c) Fujita, T. T., and Wakimoto, R. M., Anticyclonic tornadoes in 1980 and 1981. Preprint, p. 401-404.
 - d) Stiegler, D. J., and T. T. Fujita, A detailed analysis of the San Marcos, Texas tornado induced by hurricane "Allen" on 10 August, 1980. Preprint, p. 371-374.
 - e) Wakimoto, R. M., The life cycle of thunderstorm gust fronts as viewed with doppler radar and rawinsonde data. Preprint, p. 409-412.

²³ Mock-up SMRP version using preprint exists.

²⁴ Originally planned to be on the damage to the Grand Gulf cooling tower and a set of figures exists.

²⁵ A paper on Grand Gulf appearing in a ASCE conference proceedings volume is sometimes erroneously listed as SMRP 187. A similar manuscript entitled "Aerial photogrammetric analysis of the Grand Islands tornadoes on 3 June 1980", 7 pp., is also sometimes erroneously marked SMRP 187.

²⁶ Title page and SMRP mock-up exists for this collection. There was a sixth paper at this conference that Ted co-authored on the Bossier City tornado that is not included as part of 193.

- 194 Wakimoto, R. M., The West Bend, Wisconsin storm of 4 April, 1981: A problem in operational meteorology: *Journal of Climate and Applied Meteorology*, v. 22(1), p. 181-189. [published January, 1983] (not published as a separate SMRP report)
- 195 Fujita, T. T., and Wakimoto, R. M., Effects of miso- and mesoscale obstructions on PAM winds obtained during project NIMROD: *Journal of Applied Meteorology*, v. 21(6), p. 840-858. [published June, 1982] (not published as a separate SMRP report)
- 196 Wakimoto, R. M., The life cycle of thunderstorm gust fronts as viewed with doppler radar and rawinsonde data: *Monthly Weather Review*, v. 110(8), p. 1060-1082. [published August, 1982] (not published as a separate SMRP report)
- 197 Forbes, G. S., and Wakimoto, R. M., A concentrated outbreak of tornadoes, downbursts and microbursts, and implications regarding vortex classification: *Monthly Weather Review*, v. 111(1), p. 220-235. [published January, 1983] (not published as a separate SMRP report)
- 198 Fujita, T. T., and Dodge, J. C., Applications of stereoscopic height computations from dual geosynchronous satellite data/joint NASA-Japan stereo project: *Advances in Space Research*, v. 2, p. 153-160. [presented June, 1982; published 1983] (not published as a separate SMRP report)
- 199 Fujita, T. T., Microburst wind shear at New Orleans International Airport, Kenner, Louisiana on July 9, 1982, 39 pp. [January, 1983]
- 200 Fujita, T. T., and Wakimoto, R. M., Microbursts in JAWS depicted by doppler radar, PAM, and aerial photographs: *Preprints, 21st Conference on Radar Meteorology*, Edmonton. American Meteorological Society, Boston, p. 638-645. [September, 1983] (not published as a separate SMRP report)
- 201 Fujita, T. T., and Wakimoto, R. M., JAWS microbursts revealed by triple-doppler radar, aircraft, and PAM data. *Preprint from 13th Conference on Severe Local Storms*, p. 97-100. [October, 1983] (not published as a separate SMRP report)
- 202 Tecson, J. J., Fujita, T. T., and Abbey, R. F., Jr., Statistical analyses of U.S. tornadoes based on the geographic distribution of population, community, and other parameters. *Preprint from 13th Conference on Severe Local Storms*, p. 120-123. [October, 1983] (not published as a separate SMRP report)
- 203 Smith, B. E., and Waranauskas, B. R., Analysis of wet microbursts by dual-doppler and ground photography. *Preprint from 13th Conference on Severe Local Storms*, p. 51-54. [October, 1983] (not published as a separate SMRP report)
- 204 Fujita, T. T., Analysis of storm-cell hazards to aviation as related to terminal doppler radar siting and update rate, 90 pp. [December, 1983]
- 205²⁷ Fujita, T. T., Andrews AFB microburst, 38 pp. [December, 1983]
- 206 Wakimoto, R. M., Forecasting dry microburst activity over the high plains: (not published as a separate SMRP report)
a) *Preprints, 10th Conference on Weather Forecasting & Analysis*, Clearwater Beach. American Meteorological Society, p. 537-542. [June, 1984].
b) *Monthly Weather Review*, v. 113(7), p. 1131-1143. [published July, 1985]
- 207 Wakimoto, R. M., Clear air mesocyclone during the JAWS project: (not published as a separate SMRP report)

²⁷ Two printings exist, one with the subtitle, "Six minutes after the Touchdown of Air Force One" and changed acknowledgements.

- a) Preprints, 22nd Conference on Radar Meteorology, Zurich. American Meteorological Society, Boston, p. 476-481. [September, 1984]
- b) Monthly Weather Review, v. 114(4), p. 736-744. [published April, 1986]
- 208²⁸ Fujita, T. T., Review of the history of mesoscale meteorology and forecasting, chapter 1. 48 pp. [July, 1984]
- 209 Stiegler, D. J., and Fujita, T. T., Mesoscale structure of hurricane Alicia: Proceedings of Specialty Conference "Hurricane Alicia", Galveston. Aerospace Division, EM Div. and ST Div., ASCE, p. 21-39. [August, 1984]] (not published as a separate SMRP report)
- 210 Fujita, T. T., The Downburst, microburst and macroburst. 122 pp. [February, 1985]
- 211²⁹ Fujita, T. T., and Stiegler, D., Detailed analysis of the tornado outbreak in the Carolinas by using radar, satellite, and aerial survey data. Preprints, 14th Conference on Severe Local Storms, Indianapolis. American Meteorological Society, p. 271-274. [October, 1985] (not published as a separate SMRP report)
- 212 Tecson, J. J., and Fujita, T. T., Automated mapping of maximum tornado windspeeds in the United States as a function of occurrence probabilities. Preprints, 14th Conference on Severe Local Storms, Indianapolis. American Meteorological Society, p. 21-24. [October, 1985] (not published as a separate SMRP report)
- 213 Smith, B. E., and Partacz, J. W., Bow-echo induced tornado at Minneapolis on 26 April, 1984. Preprints 14th Conference on Severe Local Storms, Indianapolis. American Meteorological Society, p. 81-84. [October, 1985] (not published as a separate SMRP report)
- 214 Peterson, E. C., JAWS microbursts from orographic vortex streets. Preprints, 14th Conference on Severe Local Storms, Indianapolis. American Meteorological Society, p. 256-259. [October, 1985]
- 215 Waranauskas, B. R., The rotor microburst: a new explanation of burst swath damage. Preprints, 14th Conference on Severe Local Storms, p. 260-263. [October, 1985] (not published as a separate SMRP report)
- 216 Wolfson, M. M., DiStefano, J. T., and Fujita, T. T., Low-altitude wind shear characteristics in the Memphis, TN area based on MESONET and LLWAS data. Preprints, 14th Conference on Severe Local Storms, Indianapolis. American Meteorological Society, p. 322-327. [October, 1985] (not published as a separate SMRP report)
- 217³⁰ Fujita, T. T., DFW microburst on August 2, 1985. 154 pp. [January, 1986]
- 218³¹ Fujita, T. T., U.S. tornadoes, part 1, 70-year statistics. 120 pp. [January, 1987]
- 219 Fujita, T. T., and Black, P. G., Monrovia microburst of 20 July 1986: A study of "SST". Preprints, 15th Conference on Severe Local Storms, Baltimore. American Meteorological Society, Boston, p. 380-383. [February, 1988] (not published as a separate SMRP report)
- 220 Smith, B. E., Fujita, T. T., and Partacz, J. W., A method of correcting PAM winds based on obstructions and measured windspeed. Preprints, 15th Conference on Severe Local Storms, Baltimore. American Meteorological Society, Boston, p. 339-342. [February, 1988] (not published as a separate SMRP report)

²⁸ Used at a short course for the AMS at Boulder.

²⁹ Originally (May, 1985), a paper entitled "Possible orbital parameters of the space station polar platform" was to be SMRP 211. See Technical Reports.

³⁰ Exists in both hardcover and paper bound formats.

³¹ U.S. Tornadoes, v. 2, was supposed to be a book of case studies, but was never written.

- 221³² Fujita, T. T., Smith, B. E., and Partacz, J. W., *Obstruction characteristics of 1986 COHMEX anemometers*, 204 pp.

Wind Research Laboratory (1988 – 1999)

- 222 Fujita, T. T., In-depth evaluation of doppler and anemometer data for detecting wet microbursts at Huntsville airport. 68 pp. [April, 1988]
- 223 Fujita, T. T., Northern hemisphere cyclones, Jun 81 - May 82. 92 pp. [April, 1988]
- 224 Fujita, T. T., Northern hemisphere cyclones, Jun 82 - May 83. 92 pp. [May, 1988]
- 225 Fujita, T. T., Northern hemisphere cyclones, Jun 83 - May 84. 92 pp. [June, 1988]
- 226 Fujita, T. T., Teton - Yellowstone tornado of July 21, 1987. 43 pp. [August, 1988]
- 227 Fujita, T. T., Downbursts: Meteorological features and wind field characteristics: *Journal of Wind Engineering and Industrial Aerodynamics*, v. 36, p. 75-86. [1990] (not published as a separate SMRP report)
- 228 Fujita, T. T., Northern hemisphere cyclones, Jun 84 - May 85. 92 pp. [June, 1989]
- 229 Fujita, T. T., Northern hemisphere cyclones, Jun 85 - May 86. 92 pp. [June, 1990]
- 230 Fujita, T. T., Cloud height and motion experiment CHAMEX Cape Hatteras CHAMEX 1988 Key West CHAMEX 1989. 39 pp. [January, 1991]
- 231 Fujita, T. T., Northern hemisphere storms, cyclones, typhoons, and tornadoes. 152 pp. [May, 1991]
- 232³³ Fujita, T. T., Northern hemisphere cyclones, Jun 86 - May 87. 92 pp. [June, 1991]
- 233 Fujita, T. T., Interpretation of cloud winds. Preprint from Wind Extraction Workshop, p. 99-104.
- 234 Fujita, T. T., Plainfield tornado of 28 August, 1990. 25 pp. [September, 1991]
- 235³⁴ Fujita, T. T., and Smith, B. E., Aerial survey and photography of tornado and microburst damage. 25 pp. [October, 1991]
- 236³⁵ Fujita, T. T., 29 June 1990 Streamwood microburst. 29 pp. [December, 1991]
- 237³⁶ Fujita, T. T., An overview of mesoscale prediction. Preprint from Symposium on Weather Forecasting, p. J49-J58. [January, 1992]
- 238³⁷ Fujita, T. T., Climatic Variation of Storms
a) The first-year research under NAG8-886 [FY 92 report], 7 pp. [February, 1992]
b) The second-year research under NAG8-886 [FY 93 report], 5 pp. [June, 1993]
- 239 Fujita, T. T., Memoirs of an effort to unlock mystery of severe storms during the 50 years, 1942-1992, 298 pp. [October, 1992]
- 239A Fujita, T., and Fujita, S., ed., Life of a meteorologist, 94 pp. (in Japanese) [July, 1996]
- 239B Fujita, T., and Fujita, S., ed., Late years of a meteorologist, 127 pp. (in Japanese) [March, 1997]

³² Marked not yet published, but number of pages is cited.

³³ Also Semi-final report no. 1 to ONR.

³⁴ Also issued as a briefing for the NWS in June, 1991.

³⁵ 236 is the last well numbered report. From here on, numbering became very haphazard. There are changed numbers, unnumbered reports, and numbers assigned on post-it notes attached to copies within final or technical reports.

³⁶ Numbered 243 in NASA final report, but does not fit from chronological viewpoint.

³⁷ 238b is numbered 242 in NASA final report. 238a also exists with the title "Climatological Variation of Storms" with identical text. For the NASA Final Report and the published versions, see Technical Reports.

- 239C³⁸ Fujita, T. T., Partacz, J. W., and Stiegler, D. J., World atlas of typhoons and hurricanes 1950-1995. [May, 1997]
- 240³⁹ Damage surveys of 1992 Hurricanes
- a) Fujita, T., Damage survey of Hurricane Andrew in south Florida. *Storm Data*, v. 34(8), p. 25-29. [October, 1993]
 - b) Fujita, T., Damage survey of Hurricane Iniki in Kauai. *Storm Data*, v. 38(9), p. 15-27. [November, 1993]
- 241⁴⁰ Fujita, T. T., Wind fields of Andrew, Omar, and Iniki. Preprint from 20th Conference on Hurricanes and Tropical Meteorology, p. 46-49. [May, 1993]
- 242⁴¹ Reports of the Storm Data Project (ONR)
- a) Fujita, T. T., Detailed analysis of Hurricane Andrew of 24 August 1992, 71 pp. [August, 1993]
 - b) Fujita, T. T., Cumulative paths of typhoons by storm years 1950-1994, 51 pp. [January, 1996]
 - c) Fujita, T. T., Statistical paths of typhoons in 45 years, 1950-1994, 30 pp. [June, 1996]
 - d) Fujita, T. T., Paths of gridpoint-crossing typhoons in 45 years, 1950-1994, 55 pp. [December, 1995]
 - e) Fujita, T. T., 12-month prediction of El Niño and understanding of hot/cold anomalies, 50 pp. [October, 1994]
 - f) Fujita, T. T., Partacz, J. W., Stiegler, D. J., and Kawaguchi, K., Climatological prediction of typhoons and hurricanes and a cause of the 750 heat deaths in Chicago in July, 29 pp. [November, 1995]
- 243⁴² Fujita, T. T., Ground-truth experiment of cloud drift winds. Tokyo Meeting, p. 21-28. [December, 1993]
- 244 Fujita, T. T., and Partacz, J., Case studies of cloud-drift winds computed from stereo-pair cameras at University of Chicago and Downtown Chicago, *in* Stereoscopic Determination of Cloud Height and Motion, Final Report of NESDIS Grant NA 36 EC0220, p. 3-75. [March, 1995]
- 245⁴³ Fujita, T. T., Classic and recent El Niños, 15 pp. [April, 1995]
- 246A Partacz J., and Fujita, T. T., Summary of the cloud height and motion experiment (CHAMEX) 17-28 April 1995 at Norman, Oklahoma. Report No. 1, 35 pp. [July, 1995]
- 246B Fujita, T. T., and Partacz, J. W., Cloud height and motion experiment (CHAMEX) 17-28 April 1995 at Norman, Oklahoma. Final Report, 76 pp. [September, 1996]
- 247 Fujita, T. T., Detailed analysis of the storm surge caused by Typhoon Nancy of 1961 in west central Japan. [1996]
- 248⁴⁴ Partacz, J. W., and Fujita, T. T., Climatological variation of El Niño. [December, 1997]

³⁸ Contains selected figures from WRL 250.

³⁹ There is some uncertainty about the publications dates. See formal publications.

⁴⁰ Numbered 244 in the NASA final report.

⁴¹ Number assigned on the basis of the date of the earliest report (Andrew). 242e was originally numbered 248. These were numbered reports 1 through 5 to ONR, so we have adopted the official report number sequence within this group. 242f was originally numbered 250, a number later assigned to the atlas.

⁴² Hand numbered WRL 247.

⁴³ Originally numbered 249, but that number was assigned by the El Niño book. There is a March, 1995 version entitled "One to ten year prediction of the El Niño phenomena" with the same text.

⁴⁴ Contains a series of technical reports, some of which were issued separately. These reports are:

1. Climatological influence of storms, 33 pp.

- 249 Fujita, T. T., and Fujita, S., Mystery of El Niño and hurricanes, 72 pp. [January 15, 1998]
- 249A⁴⁵ Fujita, T. T., Addenda to WRL research paper 249.
- 1) Fujita, T. T., Prediction of the 1997-1998 El Niño, 4 pp. (January 25, 1998)
 - 2)⁴⁶ Fujita, T. T., Variation of Equatorial Front, SST and Anomaly. (January 25, 1998)
 - 3) Fujita, T. T., Fourth Method of El Niño Prediction, 4 pp. (February 26, 1998)
 - 4) Fujita, T. T., Score-Table of Four Predictions. (March 2, 1998)
 - 5) Fujita, T. T., El Niño – blizzard – tornado – hurricane, 3 pp. (March 13, 1998)
 - 6) Fujita, T. T., Partacz, J., and Stiegler, D., Typhoons and hurricanes in 1996 La Niña Year and 1997 Super El Niño Year, 15 pp. (April 14, 1998)
 - 7) Fujita, T. T., Partacz, J., and Stiegler, D., Selection of Peru or Equatorial current and comparison of 1982-83 and 1997-98 El Niños, 11 pp. (April 22, 1998)
 - 8) Fujita, T. T., Comments to the Spring Meeting, 27-29 May 1998 of the Meteorological Society of Japan, 17 pp. (April 30, 1998)
 - 9) Fujita, T. T., Partacz, J., and Stiegler, D., Tornado and El Niño, 9 pp. (April 27, 1998)
 - 10)⁴⁷ Fujita, T. T., Partacz, J., and Stiegler, D., Shifting or circulation of equatorial water, 6 pp. (May 4, 1998)
 - 11) Fujita, T. T., 1998. Mysterious transformation of El Niño (warm) to La Niña (cold), 5 pp. [June 16, 1998]
 - 12) Partacz, J., 1998. Addendum to June 29, 1998 letter, 1 p. (July, 1998)
 - 13)⁴⁸ Fujita, T. T., Partacz, J., and Stiegler, D., Hurricane formation vs co-existing El Niño and La Niña, 3 pp. (August 12, 1998)
- 250 Fujita, T. T., Partacz, J., and Stiegler, D., World Atlas of Typhoons and Hurricanes 1951 – 1995, 102 pp. [September, 1999]
- 251⁴⁹ Fujita, T. T., and Forbes, G. S., One hundred and forty eight tornadoes in sixteen hours: A record of the superoutbreak of tornadoes on April 3-4, 1974.
- 252 Fujita, K., Partacz, J. W., Stiegler, D. J., and Abbey, R., Jr., A bibliography of the publications and research reports of Tetsuya T. Fujita, 51 pp. [January, 2000]

2. Characteristics of typhoons during the top 11 El Nino and top 11 La Nina years, 31 pp.

3. Fujita, T. T., Partacz, J. W., and Stiegler, D. J., Strongest La Nina and El Nino cases: detailed analysis of SST and 500 mb height anomaly fields, 10 pp. (June, 1996)

4A. Fujita, T. T., Partacz, J. W., and Stiegler, D. J., TOPEX-case analyses (global scale) of 500mb height anomaly fields superimposed upon TOPEX height during October, November, and December 1994, 7 pp. (February, 1996)

4B. Pacific scale TOPEX – Case analyses of 500mb height anomaly fields superimposed upon SST anomaly during October, November, and December 1994, 15 pp.

4C. Pacific scale TOPEX – Case analyses of 200mb height anomaly fields superimposed upon SST anomaly during October, November, and December 1994, 9 pp.

4D. Pacific scale TOPEX – Case analyses of 850mb height anomaly fields superimposed upon SST anomaly during October, November, and December 1994, 9 pp.

5. Typhoons and hurricanes around the world and their variations due to El Nino, 1p.

⁴⁵ Addenda 1-4 were issued in March, 1998, as 13 page packet. Originally intended to be included in WRL 250.

⁴⁶ Addendum 2 is entitled “Scaling El Niños: Fujita El Niño Scale” on its cover page. See also maps.

⁴⁷ Last numbered addendum.

⁴⁸ Last known document Ted completed before his death. His health deteriorated badly in July, 1998, and he was unable to work after early August, 1998.

⁴⁹ Unpublished manuscript being completed and edited by Greg Forbes. To be issued.

II. SEVERE LOCAL STORMS PROJECT REPORTS

These reports were usually issued in preprint form with gray covers and black taped spines. The number was obtained from hand written numbers on file folders containing the original masters for printing these reports, as well as from two lists, one of publications, and one of SLS reports. In most cases, the numbering worked fairly well and close to chronological order, but some were determined on an ad-hoc basis, as noted below. The series ended in 1961, but I have included a few later reports written by Roger Brown as they were issued in a similar manner and he was involved with both those reports as well as SMRP reports. The title of the series, "Severe Local Storms Project" (SLSP) was taken from the cover of SLSP 20, the most widely distributed of these reports. Ted referred to the Weather Bureau, Signal Corps, and Air Force contracts as SLSs. About 50 to 75 copies of most reports were printed and distributed to funding agencies and meteorological centers.

- 1 Fujita, T., 1955. Results of detailed synoptic studies of squall lines: *Tellus*, v. 7(4), p. 405-436. [submitted June, 1955]
- 2 Fujita, T., 1956. Mesoanalysis – an important scale in the analysis of weather data: U.S. Department of Commerce, Weather Bureau, Research Paper 39, 83 pp. [presented May, 1955]
- 3 Fujita, T., Mesoanalysis of the Illinois tornado of April 9, 1953: University of Chicago, Department of Meteorology, Technical Report to U.S. Weather Bureau contract Cwb 8613, 35 pp. [November, 1956]
- 4 Brown, H. A., Mesoscale systems: post-cold frontal disturbances: University of Chicago, Department of Meteorology, Technical Report to U.S. Weather Bureau contract Cwb 8613. [1956]
- 5 Newton, C. W., Observational studies of squall line behavior, and effects of environmental wind field: University of Chicago, Department of Meteorology, Technical Report to U.S. Weather Bureau contract Cwb 8613. [1956]
- 6 Fujita, T., 1957. Recent Studies in Mesometeorology: *Journal of the Meteorological Society of Japan*: 75th Anniversary Volume, p. 256-261. [submitted May, 1957]
- 7 Fujita, T., and Brown, H. A., A study of mesosystems and their radar echoes: University of Chicago, Department of Meteorology, Technical Report 1 for U.S. Weather Bureau grant Cwb 8950, 32 pp. [April, 1957]
- 8¹ Fujita, T., Structure and movement of a dry front. A revised method of pressure reduction: University of Chicago, Department of Meteorology, Technical Report 3 to U.S. Weather Bureau contract Cwb 8950, 14 pp. [June, 1957]
- 9 Fujita, T., and Omoto, Y., Analysis of airplane flight observation: University of Chicago, Department of Meteorology, Technical Report 2 to U.S. Weather Bureau contract Cwb 8950, 10 pp. + figs. [May, 1957]
- 10 Fujita, T., and Brown, H. A., A revised method of pressure reduction: University of Chicago, Department of Meteorology, Technical Report 4 to U.S. Weather Bureau contract Cwb 8950, 9 pp. [no date]
- 11 Fujita, T., Study of mesosystems associated with stationary radar echoes: University of Chicago, Department of Meteorology, Technical Report 1 to U.S. Weather Bureau contract Cwb 9321, 13 pp. + figs. [February, 1958]

¹ Report has been numbered both 8 and 12; 8 fits the timeline better. Exists in two versions, the technical report and a typescript copy of the version published in the *Bulletin of the American Meteorological Society*.

- 12² Brown, H. A., Analysis of a squall line: a line series of mesosystems in different stages of development: University of Chicago, Department of Meteorology, Technical Report 2 to U.S. Weather Bureau contract Cwb 9321. [1958]
- 13 Fujita, T., Three-dimensional mesoanalysis of a squall line: Illinois State Water Survey, Meteorologic Laboratory, Research Report no. 1 to U.S. Army Signal Engineering Laboratories contract DA-36-039 SC-64656, 80 pp. [November, 1957]
- 14 Fujita, T., Precipitation and cold-air production in mesoscale thunderstorm systems: University of Chicago, Department of Meteorology, Technical Report 3 to U.S. Weather Bureau contract Cwb 9321. [June, 1958]
- 15 Omoto, Y., Study of outbreaks of severe local storms near dry fronts: University of Chicago, Department of Meteorology, Technical Report 4 to U.S. Weather Bureau contract Cwb 9321. [August, 1958]
- 16 Fujita, T., Tornado cyclone: Parent system of tornadoes: University of Chicago, Department of Meteorology, Technical Report 1 to U.S. Weather Bureau Cwb 9530, 10 pp. [November, 1958]
- 17 Fujita, T., Mesoanalysis of hurricane rainbands: Technical Report 2 to U.S. Weather Bureau contract Cwb 9530, 10 pp. [November, 1958]
- 18 Fujita, T., Structure of convective storms. University of Chicago, Department of Meteorology, Technical Report 3 to U.S. Weather Bureau contract Cwb 9530, 12 pp. [May, 1959]
- 19 Fujita, T., A computation method of velocity of individual echoes inside hurricanes: University of Chicago, Department of Meteorology, Technical Report 4 to U.S. Weather Bureau contract Cwb 9530, 11 pp. [May, 1959]
- 20² Fujita, T., A detailed analysis of the Fargo tornadoes of June 20, 1957: University of Chicago, Department of Meteorology, Severe Local Storms Project, Technical Report no. 5. to U.S. Weather Bureau contract Cwb 9530. [June, 1959]
- 21A³ Fujita, T., Brown, H. A., and Omoto, Y., Design of a three-dimensional meso-meteorological network: University of Chicago, Department of Meteorology, 1st Quarterly Technical Report, 1 April 1959 to 30 June 1959, to U.S. Army Signal Engineering Laboratories contract DA-36-039 SC-78901, 74 pp. [July, 1959]
- 21B⁴ Fujita, T., Brown, H. A., and Omoto, Y., Design of a three-dimensional meso-meteorological network: University of Chicago, Department of Meteorology, 2nd Quarterly Technical Report, 1 July 1959 to 30 September 1959, to U.S. Army Signal Engineering Laboratories contract DA-36-039 SC-78901, 45 pp. [October, 1959]
- 21C⁴ Fujita, T., Brown, H. A., and Omoto, Y., Design of a three-dimensional meso-meteorological network: University of Chicago, Department of Meteorology, 3rd Quarterly Technical Report, 1 October 1959 to 31 December 1959, to U.S. Army Signal Engineering Laboratories contract DA-36-039 SC-78901. [January, 1960]
- 21D⁴ Fujita, T., and Brown, H. A., Design of a three-dimensional meso-meteorological network: University of Chicago, Department of Meteorology, 4th Quarterly Technical Report, 1 January 1960 to 30 April 1959, to U.S. Army Signal Engineering Laboratories contract DA-36-039 SC-78901. [May, 1960]

² Report 20 is the most famous and widely distributed of the SLSPs. Later issued as a weather bureau research paper.

³ Collectively numbered 21. 1st report also numbered 21A, 3rd also numbered 22B, and 4th also numbered both 21 and 22F.

- 22A⁴ Brown, H. A., Mesometeorological study of selected areas in the United States: University of Chicago, Department of Meteorology, 5th Quarterly Technical Report, 1 May 1960 to 31 July 1960, to U.S. Army Signal Engineering Laboratories contract DA-36-039 SC-78901. [August, 1960]
- 22B⁴ Brown, H. A., and Goldman, J. L., Mesometeorological study of selected areas in the United States: University of Chicago, Department of Meteorology, 6th Quarterly Technical Report, 1 August 1960 to 31 October 1960, to U.S. Army Signal Engineering Laboratories contract DA-36-039 SC-78901. [November, 1960]
- 22C⁴ Brown, H. A., and Goldman, J. L., Mesometeorological study of selected areas in the United States: University of Chicago, Department of Meteorology, 7th Quarterly Technical Report, 1 November 1960 to 31 January 1961, to U.S. Army Signal Engineering Laboratories contract DA-36-039 SC-78901. [February, 1961]
- 22D⁴ Brown, H. A., and Goldman, J. L., Mesometeorological study of selected areas in the United States: University of Chicago, Department of Meteorology, Final Report, 1 April 1959 to 31 August 1961, to U.S. Army Signal Engineering Laboratories contract DA-36-039 SC-78901. [September, 1961]
- 23 Fujita, T., Mesometeorological study of pressure and wind field beneath isolated radar echoes: Department of Meteorology, University of Chicago, Technical Report 1 to U.S. Weather Bureau contract Cwb 9762, 23 pp. [March, 1960]
- 24 Fujita, T., Preliminary report on the development of the animated motion picture in mesometeorology: Department of Meteorology, University of Chicago, Technical Report 6 to U.S. Weather Bureau contract Cwb 9530, 8 pp. + figs. [June, 1959]
- 25 Omoto, Y., and Fujita, T., Animation of a 700 Mb level wind field: Department of Meteorology, University of Chicago, Technical Report 7 to U.S. Weather Bureau contract Cwb 9530, 6 pp. + figs. [June, 1959]
- 26 Brown, H. A., Report on radar thin bands: Department of Meteorology, University of Chicago, Technical Report 8 to U.S. Weather Bureau contract Cwb 9530, 8 pp. + figs. [June, 1959]
- 27 Omoto, Y., Study of Mesoflows of April 25-26, 1957: Department of Meteorology, University of Chicago, Technical Report 9 to U.S. Weather Bureau contract Cwb 9530, 12 pp. + figs. [June, 1959]
- 28 Brown, H. A., Report on the squall line of June 23, 1957: Department of Meteorology, University of Chicago, Technical Report 10 to U.S. Weather Bureau contract Cwb 9530, 9 pp. + figs. [June, 1959]
- 29 Fujita, T., Osawa, K., and Brown, H. A., Motion picture representation of squall lines and tornadoes over the midwest in June, 1957: Department of Meteorology, University of Chicago, Technical Report 2 to U.S. Weather Bureau contract Cwb 9762, 2 pp. + figs. [August, 1960]
- 30⁵ Fujita, T., and Byers, H., Model of a hail cloud as revealed by photogrammetric analysis: Department of Meteorology, University of Chicago, Technical Report 3 to U.S. Weather Bureau contract Cwb 9762, 32 pp. [September, 1960]

⁴ Collectively numbered 22. 5th and 7th Quarterly Reports also numbered 22E, 6th also numbered 22D, 1961 Final report also numbered 22C, and 1962 final report also numbered 22A.

⁵ Exists in at least three versions with slightly varying text and figures.

- 31 Fujita, T., Preliminary study of pressure, wind, and cloud changes on the slope of San Francisco Mountain, Arizona: Department of Meteorology, University of Chicago, Technical Report 4 to U.S. Weather Bureau contract Cwb 9762, 4 pp. + figs. [September, 1960]
- 32 Osawa, K., Preliminary Report on the Mesometeorological study of squall lines and their environments: Department of Meteorology, University of Chicago, Technical Report 5 to U.S. Weather Bureau contract Cwb 9762, 5 pp. [September, 1960]
- 33 Fujita, T., Mesosystems: Medium scale weather systems closely related to the initiation of severe local storms: Submitted to Scientific American (unpublished), 10 pp. + figs. [c in Cwb 9762 Final Report] [September, 1960]
- 34 Fujita, T., Numerical study of a mesohigh of June 26-27, 1953, over the United States midwest: Department of Meteorology, University of Chicago, Technical Report to U.S. Weather Bureau contract Cwb 9931, 8 pp. + figs. [n.d., 1960]
- 35⁶ Fujita, T., Analysis technique of single-image oblique photographs: Unpublished manuscript presented at the Research Forecasters Meeting, U.S. Weather Bureau, May 2, 1960. [May, 1960]
- 36 Fujita, T., Test analysis of New York City photograph of September 17, 1959, using Fujita's single-image photogrammetric technique: Technical report to U.S. Weather Bureau contract Cwb 9931, 13 pp. [no date, 1960]
- 37⁷ Fujita, T., Styber, K. A., and Brown, R. A., On the mesometeorological field studies near Flagstaff, Arizona: University of Chicago, Department of Meteorology, Scientific Report 1 to Air Force Cambridge Research Laboratories contract AF 19(604)7259, 26 pp. [May, 1961]
- 38 Goldman, J. L., and Fujita, T., Study of developmental processes of severe storms using satellite and terrestrial based observations. Preliminary report: Reduced data for the square cloud case, May 19, 1960: Department of Meteorology, University of Chicago, Technical Report to U.S. Weather Bureau contract Cwb 9931. [1961]
- 39⁸ Fujita, T., A method of combining radar, aerial, and satellite photographs taken during hurricanes: Department of Meteorology, University of Chicago, Technical Report to U.S. Weather Bureau contract Cwb 10047. 5 pp. + figs. [June, 1961]
- 40A⁹ Brown, H. A., and Bonner, W., Mesometeorological study of selected areas in the United States: University of Chicago, Department of the Geophysical Sciences, Semi-annual report, 1 September 1961 to 28 February 1962, to U.S. Army Signal Research and Development Laboratory contract DA36-039 SC-88932. [March, 1962]
- 40B¹⁰ Brown, H. A., and Bonner, W. D., Mesometeorological study of selected areas in the United States: University of Chicago, Department of the Geophysical Sciences, Final Report, 1 September 1961 to 30 November 1962, to U.S. Army Signal Engineering Laboratories contract DA-36-039 SC-88932. [December, 1962]

⁶ Assigned number. See footnote 8.

⁷ Numbered SLSP 38 in the master list. A version of this report for the Chicago meeting of the AMS dated March, 1961, also exists.

⁸ Numbered both 39 and 35. From timeline viewpoint 39 fits better.

⁹ Assigned number; also numbered 22. Other semiannual reports may exist. Only a typed manuscript for 40A has been located.

¹⁰ Numbered 22A and 40. 40 fits the timeline. This is the last report that was numbered in any of the lists.

- 41¹¹ Osawa, K., Squall Line circulation in terms of moisture inflow and precipitation: Technical Report 6 to Cwb 9931. [June, 1961]
- 42 Styber, K. A., Precipitation in the 1960 Flagstaff mesometeorological network: Scientific Report 2 to Air Force Cambridge Research Laboratories contract AF 19(604)7259, 24 pp. [July, 1961] (also issued as SMRP 6)
- 43¹² Fujita, T., and Ushijima, T., 1961. Investigations of squall lines with the use of radar and satellite photographs: Proceedings of the 9th Weather Radar Conference, Kansas City, p. 186-192. [October, 1961]
- 44 Baralt, G. L., and Brown, R. A., The land and sea breeze: an annotated bibliography: Satellite and Mesometeorology Research Project, Report to Air Force Cambridge Research Laboratories, contract AF-7259-6, 61 pp. [February, 1965]
- 45 Brown, R. A., Mesometeorological studies: Final report, 1 February 1965 to 31 January 1966 to Air Force Cambridge Research Laboratories contract AF 19(628)4807, 101 pp. [February, 1966]
- a) Brown, R. A., On the determination of exchange coefficients: Part II – rotating and nonrotating convective currents, 30 pp.
- b) Brown, R. A., On the “thunderstorm – high controversy”, 26 pp.
- c) Brown, R. A., Three-dimensional growth characteristics of an orographic thunderstorm system, 45 pp.

¹¹ Assigned number. Also numbered 43. At this time, the first SMRP reports were being issued and it is unclear why some reports became SMRPs and why others were left unnumbered.

¹² Also numbered 36 and 44.

III. FORMAL PUBLICATIONS AND CONFERENCE PROCEEDINGS

- Fujita, T., Kusano, K., Yoshida, N., and Fujimura, S. 1941a. Observations of the eclipse of 2601; Time measurement, observations of the sun face, and subdivision observations: Science Magazine (Meiji College), v. 8(1) p. 33-37. (in Japanese)
- Fujita, T., 1941b. Observations of the eclipse of 2601; Looking back at the eclipse (part 2), conclusions: Science Magazine (Meiji College), v. 8(1) p. 65-68. (in Japanese)
- Fujita, T., 1941c. On the geologic formations of northern Kyushu: Science Magazine (Meiji College), v. 8(1) p. 78-88. (in Japanese)
- Fujita, T., 1941d. Multiple studies of dry friction and a synthesis: Science Magazine (Meiji College), v. 8(1), p. 105-119. (in Japanese)
- Fujita, T., 1951a. Micro-analytical study of thunder-nose: Geophysical Magazine, v. 22(3), p. 71-88. [read May, 1949; published January, 1951]
- Fujita, T., 1951b. Micro-analytical study of cold front: Geophysical Magazine, v. 22(3), p. 237-277. [presented November, 1949; published March, 1951]
- Fujita, T., 1951c. Disturbances observed in the vicinity of the Okhotsk Sea anticyclone: Bulletin of the Kyushu Institute of Technology, no. 1, p. 65-73. [submitted November, 1950; published March, 1951]
- Fujita, T., 1952a. Study on pressure dips within Typhoon Della: Bulletin of the Kyushu Institute of Technology, no. 2, p. 52-61. [published March, 1952]
- Fujita, T., 1952b. Pressure distribution within typhoon: Geophysical Magazine, v. 23(4), p. 437-451. [submitted February, 1952; published May, 1952]
- Fujita, T., 1955. Results of detailed synoptic studies of squall lines: Tellus, v. 7(4), p. 405-436. [submitted June, 1955; published November, 1955] (also SLSP 1)
- Fujita, T., Newstein, H., and Tepper, M., 1956. Mesoanalysis - an important scale in the analysis of weather data: U.S. Department of Commerce, Weather Bureau, Research Paper no. 39, v + 83 pp. [presented May, 1955; published January, 1956] (also SLSP 2)
- Fujita, T., 1957. Recent studies in mesometeorology: Journal of the Meteorological Society of Japan, 75th Anniversary Volume, p. 256-261. [submitted May, 1957; published November, 1957] (also SLSP 6)
- Fujita, T., 1958a. Three-dimensional mesoanalysis of a squall line: State of Illinois, Department of Registration and Education, Report of Investigation, no. 36, 80 pp. [submitted November, 1957; published April, 1958] (first issued as SLSP 13)
- Fujita, T., 1958b. Mesoanalysis of the Illinois tornadoes of 9 April 1953: Journal of Meteorology, v. 15(3), p. 288-296. [submitted August, 1957; published June, 1958] (first issued as SLSP 3)
- Fujita, T., and Brown, H. A., 1958c. A study of mesosystems and their radar echoes: Bulletin of the American Meteorological Society, v. 39(10), p. 538-554. [submitted January, 1958; published October, 1958] (first issued as SLSP 7)
- Fujita, T., 1958d. Structure and movement of a dry front: Bulletin of the American Meteorological Society, v. 39(11), p. 574-582. [published November, 1958] (first issued as SLSP 8)
- Fujita, T., 1958e. Mesoanalysis of hurricane rainbands, in Proceedings, 7th Weather Radar Conference, Miami Beach: University of Miami, Miami, p. K31-K38. [November, 1958]
- Fujita, T., 1959a. Study of mesosystems associated with stationary radar echoes: Journal of Meteorology, v. 16(1), p. 38-52. [submitted March, 1958; published February, 1959] (first issued as SLSP 11)

- Fujita, T., 1959b. Precipitation and cold air production in mesoscale thunderstorm systems: *Journal of Meteorology*, v. 16(4), p. 454-466. [submitted November, 1958; published August, 1959] (first issued as SLSP 14)
- Fujita, T., 1960a. Mother cloud of the Fargo tornadoes of 20 June, 1957, in Anderson, C. E., *Cumulus Dynamics*: Pergamon Press, Oxford, p. 175-177. [presented May, 1959; published 1960]
- Fujita, T., 1960b. Structure of convective storms: American Geophysical Union, *Geophysical Monograph no. 5*, p. 61-66. [presented June, 1959; published, 1960] (first issued as SLSP 18)
- Fujita, T., 1960c. Mesometeorological study of pressure and wind field beneath isolated radar echoes, in *Proceedings of the 8th Weather Radar Conference*, San Francisco: Stanford Research Institute, Stanford, p. 151-158. [April, 1960] (first issued as SLSP 23)
- Fujita, T., 1960d. A detailed analysis of the Fargo tornadoes of June 20, 1957: U. S. Department of Commerce, Weather Bureau, Research Paper no. 42, 67 pp. [presented June, 1959; published December, 1960] (first issued as SLSP 20)
- Fujita, T., and Ushijima, T., 1961. Investigation of squall lines with the use of radar and satellite photographs, in *Proceedings of the 9th Weather Radar Conference*, Kansas City: Kansas City Seminar, Kansas City, p. 186-192. [October, 1961] (first issued as SLSP 42)
- Fujita, T., and Byers, H. R., 1962a. Model of a hail cloud as revealed by photogrammetric analysis: *Nubila*, v. 5(1), p. 85-105. [presented August, 1960; published January?, 1962] (first issued as SLSP 30)
- Fujita, T., 1962b. Numerical study of a mesohigh of June 26-27, 1953 over the United States midwest, in Syono, S., ed., *Proceedings of the International Symposium on Numerical Weather Prediction in Tokyo November 7-13, 1960*: Tokyo, Meteorological Society of Japan, p. 501-519. [presented November, 1960; published March, 1962] (first issued as SLSP 34)
- Fujita, T., Styber, K. A., and Brown, R. A., 1962c. On the mesometeorological field studies near Flagstaff, Arizona: *Journal of Applied Meteorology*, v. 1(1), p. 26-42. [submitted July, 1961; published March, 1962] (first issued as SLSP 37)
- Fujita, T., 1962d. Index to the NSSP surface network: U.S. Weather Bureau, NSSP report 6, 32 pp. [published April 1962] (first issued as SMRP 2)
- Fujita, T., Ushijima, T., Hass, W. A., and Dellert, G. T., Jr., 1962e. Meteorological interpretation of convective nephosystems appearing in TIROS cloud photographs: *International Symposium on Rocket and Satellite Meteorology*, Session 2.17, 33 pp. [September, 1962]
- Fujita, T., 1963a. A technique for precise analysis for satellite data; volume I – Photogrammetry: U.S. Department of Commerce, Weather Bureau, Meteorological Satellite Laboratory Report No. 14, 106 pp. [published January, 1963] (also SMRP 13)
- Fujita, T., and Arnold, J. E., 1963b. Development of a cumulonimbus under the influence of strong vertical shear, in *Proceedings of the 10th Weather Radar Conference*: Washington DC, 1963. American Meteorological Society, p. 178-186.
- Fujita, T., Ushijima, T., Hass, W. A., and Dellert, G. T., Jr., 1963c. Meteorological interpretation of convective nephosystems appearing in TIROS cloud photographs, in Wexler, H., and Caskey, J. E., Jr., eds., *Proceedings of the First International Symposium on Rocket and Satellite Meteorology*: North-Holland Publishing Co., Amsterdam, and John Wiley & Sons, Inc., New York, p. 357-387 [presented April, 1962; published 1963]

- Fujita, T., 1963d. Analysis of selected aircraft data from NSSP operations, 1962: U.S. Department of Commerce, Weather Bureau, National Severe Storms Project, Report no. 16, 29 pp. [published May, 1963]
- Fujita, T., 1963e. Analytical mesometeorology: a review: *Meteorological Monographs*, v. 5(27), p. 77-125. [published September, 1963]
- Goldman, J. L., and Fujita, T., 1963f. Radar and photogrammetric study of the Illinois tornadoes of April 17 and 22, 1963, *in* Conference Review for 3rd Conference on Severe Local Storms, Urbana: East Central Illinois Chapter of the American Meteorological Society, 19 pp. [October, 1963] (first issued as SMRP 24)
- Fujita, T., and Arnold, J. E., 1963g. Detection of hurricanes using TIROS infrared data, *in* Proceedings, Symposium on Tropical Meteorology, New Zealand, p. 582-589.
- Arnold, J. E., and Fujita, T., 1965a¹. Errors induced in satellite photogrids due to incorrect input information (session L), *in* Proceedings of the inter-regional seminar on the interpretation and use of meteorological satellite data, 27 November to 8 December, 1964: Japan Meteorological Agency, Tokyo, p. 153-168. [presented December, 1964; published 1965]
- Fujita, T., 1965b¹. Mesometeorological interpretation of satellite data (sessions N – Q, *in* Proceedings of the inter-regional seminar on the interpretation and use of meteorological satellite data, 27 November to 8 December, 1964: Japan Meteorological Agency, Tokyo, p. 193-267. [presented December, 1964; published 1965]
- a) Fujita, T., with Gargard, S. Y., Mesoscale convection associated with a Typhoon, session Na, p. 194-195, 199-205.
 - b) Fujita, T., with Arnold, J. E., Mesoscale features of the typhoon cirrus shield, session Nb, p. 196-199, 206-216.
 - c) Fujita, T., with Black, P. G., Convection over Japan in summer, session Oa, p. 217-219, 222-228.
 - d) Fujita, T., with Black, P. G., and Tecson, J. J., tropical land convection over the Philippines, session Ob, p. 220-221, 229-232.
 - e) Fujita, T., with Lyons, W. A., North Pacific fog, session P, p. 233-244.
 - f) Fujita, T., with Gargard, S. Y., Formation of clouds over the Sea of Japan, session Qa, p. 245-246, 250-256.
 - g) Fujita, T., with Tsuchiya, T., Influence of the Japanese islands upon the winter monsoon clouds, session Qb, p. 247-249, 257-267.
- Fujita, T., 1965c. Formation and steering mechanisms of tornado cyclones and associated hook echoes: *Monthly Weather Review*, v. 93(2), p. 67-78. [submitted August, 1964; published February, 1965]
- Fujita, T., Imai, I., 1965d. U.S.-Japan study session on the use of meteorological satellite data and aerial photographs in cloud research: *Bulletin of the American Meteorological Society*, v. 46(7), p. 392-397. [published July, 1965]
- Fujita, T., and Bandeen, W., 1965e. Resolution of the Nimbus high resolution infrared radiometer: *Journal of Applied Meteorology*, v. 4(4), p. 492-503. [submitted March, 1965; published August, 1965] (first issued as SMRP 40)
- Fujita, T., 1965f. Reply to comments on "Formation and steering mechanisms of tornado cyclones and associated hook echoes": *Monthly Weather Review*, v. 93(10), p. 640-643. [submitted June, 1965; published October, 1965]

¹ Also available in workbook form for distribution at the seminar workshop; see technical reports (1964).

- Fujita, T., 1965g. Evaluation of errors in the graphical rectification of satellite photographs: *Journal of Geophysical Research*, v. 76(24), p. 5997-6007. [submitted July, 1964; published December, 1965]
- Fujita, T., 1966a. Accurate calibration of Doppler winds for their use in the computation of mesoscale wind fields: *Monthly Weather Review*, v. 94(1), p. 19-35. [submitted August, 1965; published January, 1966] (first issued as SMRP 36)
- Bradbury, D. L., and Fujita, T., 1966b. Features and motions of radar echoes on Palm Sunday, 1965, in 12th Conference on Radar Meteorology, Norman: American Meteorological Society, p. 319-324. [October, 1966] (first issued as SMRP 51)
- Fujita, T., Izawa, T., Watanabe, K., and Imai, I., 1967a. A model of typhoons accompanied by inner and outer rainbands: *Journal of Applied Meteorology*, v. 6(1), p. 3-19. [submitted June, 1966; published February, 1967] (first issued as SMRP 60)
- Fujita, T., and Tsuchiya, K., 1967b. A proposed mechanism of snowstorm mesojets over Japan under the influence of the winter monsoon: *Journal of the Meteorological Society of Japan*, Ser. II, v. 45(1), p. 96-110. [submitted September, 1966; published February, 1967] (first issued as SMRP 56)
- Tsuchiya, K., and Fujita, T., 1967c. A satellite meteorological study of evaporation and cloud formation over the western Pacific under the influence of the winter monsoon: *Journal of the Meteorological Society of Japan*, Ser. II, v. 45(3), p. 232-250. [submitted December, 1966; published June, 1967] (first issued as SMRP 55)
- Fujita, T., 1967d. Mesoscale aspects of orographic influences on flow and precipitation patterns, in Reiter, E. R., and Rasmussen, J. L., eds., *Proceedings of the Symposium on Mountain Meteorology*: Colorado State University, Atmospheric Science Paper 122, p. 131-146. [presented June, 1967] (first issued as SMRP 67)
- Fujita, T., Bradbury, D. L., and Black, P. G., 1967e. Estimation of tornado wind speeds from characteristic ground marks, in *Preprints from 5th Conference on Severe Local Storms*, St. Louis: American Meteorological Society, Boston, p. 38-45. [October?, 1967] (first issued as SMRP 69)
- Fujita, T., and Grandoso, H., 1968a. Split of a thunderstorm into anticyclonic and cyclonic storms and their motion as determined from numerical model experiments: *Journal of Atmospheric Sciences*, v. 25(3), p. 416-439. [submitted December, 1966; published May, 1968] (first issued as SMRP 62)
- Lyons, W. A., and Fujita, T., 1968b. Mesoscale motions in oceanic stratus as revealed by satellite data: *Monthly Weather Review*, v. 96(5), p. 304-313. [submitted September, 1967; published May, 1968] (first issued as SMRP 66)
- Fujita, T., 1968c². Results of the computation of cloud heights, emissivity, and cover from long- and short-wave radiation data: *Proceedings of the IUGG General Assembly, Lucerne 1967*, p. 155-163.
- Fujita, T., Baralt, G., and Tsuchiya, K., 1968d. Aerial measurement of radiation temperatures over Mt. Fuji and Tokyo areas and their application to the determination of ground- and water-surface temperatures: *Journal of Applied Meteorology*, v. 7(5), p. 801-816. [submitted April, 1968; published October, 1968] (first issued as SMRP 72)

² This paper is also attributed to the Proceedings, 17th Congress of International Astronautical Federation, Madrid in 1966 with the same page numbers, as well as to the Lucerne meeting with a publication date of 1967. The reprint itself contains no clues as to the true source. Ted attended both meetings.

- Fujita, T., 1969a. Present status of cloud velocity computations from the ATS I and ATS III satellites, *in* COSPAR Space Research IX: North-Holland Publishing Co., Amsterdam, p. 557-570. [presented May, 1968; published 1969]
- Izawa, T., and Fujita, T., 1969b. Relationship between observed winds and cloud velocities determined from pictures obtained by the ESSA III, ESSA V and ATS I satellites, *in* COSPAR Space Research IX: North-Holland Publishing Co., Amsterdam, p. 571-579. [presented May, 1968; published 1969]
- Fujita, T. T., and Bradbury, D. L., 1969c. Determination of mass outflow from a thunderstorm complex using ATS-III pictures, *in* Preprints of papers presented at the 6th Conference on Severe Local Storms, Chicago: American Meteorological Society, Boston, p. 38-43. [April, 1969] (first issued as SMRP 79)
- Fujita, T., Watanabe, K., and Izawa, T., 1969d. Formation and structure of equatorial anticyclones caused by large-scale cross-equatorial flows determined by ATS-I photographs: *Journal of Applied Meteorology*, v. 8(4), p. 649-667. [submitted April, 1969; published August, 1969] (first issued as SMRP 78)
- Fujita, T., 1969e. Application of enhanced ATS pictures: 6th Hurricane Conference, Miami.
- Fujita, T. T., Bradbury, D. L., Van Thullenar, C. F., 1970a. Palm Sunday tornadoes of April 11, 1965: *Monthly Weather Review*, v. 98(1), p. 29-69. [submitted June, 1969; published January, 1970] (reprinted as SMRP 86)
- Fujita, T. T., 1970b. The Lubbock tornadoes: a study of suction spots: *Weatherwise*, v. 23(4), p. 160-173. [published August, 1970] (first issued as SMRP 88)
- Fujita, T. T., and Black, P. G., 1970c. In- and outflow field of Hurricane Debbie as revealed by echo and cloud velocities from airborne radar and ATS-III pictures, *in* Preprints of papers presented at the 14th Radar Meteorology Conference, Tucson: American Meteorological Society, Boston, p. 353-358. [November, 1970] (reprinted in SMRP 93)
- Gentry, R. C., Fujita, T. T., and Sheets, R. C., 1970d. Aircraft, spacecraft, satellite, and radar observations of Hurricane Gladys, 1968: *Journal of Applied Meteorology*, v. 9(6), p. 837-850. [submitted February, 1970; published December, 1970] (first issued as SMRP 83)
- Fujita, T. T., 1971a. Proposed mechanism of suction spots accompanied by tornadoes, *in* Preprints of papers presented at the 7th Conference on Severe Local Storms, Kansas City: American Meteorological Society, Boston, p. 208-213. [October, 1971] (first issued as SMRP 102)
- Fujita, T. T., Tecson, J. J., and Schaal, L. A., 1971b. Preliminary results of tornado watch experiment 1971. Preprints of papers presented at the 7th Conference on Severe Local Storms, Kansas City: American Meteorological Society, Boston, p. 255-261. [October, 1971]
- Shanahan, J. A., and Fujita, T. T., 1971c. The Lubbock tornadoes and Fujita suction vortices. Presented at October 18-22, 1971, ASCE Annual and National Environmental Engineering meeting, St. Louis. [October, 1971]
- Fujita, T. T., 1971d. Application of ATS III photographs for determination of dust and cloud velocities over the northern tropical Atlantic: *Journal of the Meteorological Society of Japan*, v. 49, special issue, p. 813-820. [submitted April, 1971; published December, 1971] (first issued as SMRP 90)
- Fujita, T. T., and Tecson, J. J., 1972a. Use of enhanced ATS pictures for Gulf-storm researches: 4th Annual Offshore Technology Conference, p. I759-I762. [May, 1972]

- Arakawa, H., Watanabe, K., Tsuchiya, K., and Fujita, T. T., 1972b. A mesometeorological study of a subtropical mesocyclone: *Papers in Meteorology and Geophysics*, v. 23(3), p. 163-181. (in Japanese) [submitted February, 1972; published September, 1972]
- Fujita, T. T., Watanabe, K., Tsuchiya, K., and Shimada, M., 1972c. Typhoon-associated tornadoes in Japan and new evidence of suction vortices in a tornado near Tokyo: *Journal of the Meteorological Society of Japan*, v. 50(5), p. 431-453. [submitted April, 1972; published October, 1972] (first issued as SMRP 101)
- Fujita, T. T., 1973a. Tornadoes around the world: *Weatherwise*, v. 26(2), p. 56-83. [published April, 1973] (also SMRP 108)
- Tecson, J. J., Chang, Y.-M., and Fujita, T. T., 1973b³. Cloud motion field of hurricane Ginger during the seeding period as determined by the METRACOM system. 8th Technical Conference on Hurricanes and Tropical meteorology: Kay Biscayne. [May, 1973] (also issued as SMRP 116)
- Fujita, T. T., 1973c. Violent vortex – tornado: *Science Through Experiments (Kagaku no Jikken)*, v. 24(5), p. 395-402. (in Japanese) [May, 1973]
- Fujita, T. T., 1973d. Violent vortex – tornado: *Science Through Experiments (Kagaku no Jikken)*, v. 24(6), p. 517-523. (in Japanese) [June, 1973]
- Fujita, T., 1973e⁴. Tornadoes, part I: Kyoritsu Shuppan, K.K., Tokyo, 228 pp. (in Japanese) [published August, 1973]
- Fujita, T. T., and Pearson, A. D., 1973f. Results of F P P classification of 1971 and 1972 tornadoes, in *Preprints, 8th Conference on Severe Local Storms*, Denver: American Meteorological Society, Boston, p. 142-145. [October, 1973] (also SMRP 119)
- Fujita, T. T., 1973g. Proposed mechanism of tornado formation from rotating thunderstorm, in *Preprints, 8th Conference on Severe Local Storms*, Denver: American Meteorological Society, Boston, p. 191-196. [October, 1973] (also SMRP 111)
- Fujita, T. T., 1974a. Tromber och andra 'devils': *Forskning och Framsteg*, 1974(1), p. 48-57. (in Swedish, translated by E. Dyring) [published January?, 1974]
- Fujita, T. T., 1974b⁵. Jumbo tornado outbreak of 3 April 1974: *Weatherwise*, v. 27(3), p. 116-126. [published June, 1974] (also SMRP 120)
- Fujita, T. T., and Forbes, G. S., 1974c. Superoutbreak tornadoes of April 3, 1974 as seen in ATS pictures, in *Preprints, 6th Conference on Aerospace and Aeronautical Meteorology*, El Paso: American Meteorological Society, Boston, p. 165-172. [November, 1974] (also SMRP 124)
- Fujita, T. T., 1975a. Detection of severe storms by satellites, in *Preprints, 3rd Symposium on Meteorological Observations and Instrumentation*, Washington: American Meteorological Society, Boston, p. 5-9. [February, 1975] (also SMRP 131)
- Fujita, T. T., 1975b. Color map of superoutbreak tornadoes of 3-4 April, 1974: *Weatherwise*, v. 28(2), p. 55. [April, 1975]
- Fujita, T. T., Pearl, E. W., and Shenk, W. E., 1975c. Satellite-tracked cumulus velocities: *Journal of Applied Meteorology*, v. 14(3), p. 407-413. [submitted March, 1974; published April, 1975] (first issued as SMRP 114)

³ May not exist except as SMRP 116.

⁴ Book went through at least four printings.

⁵ A preprint version was distributed at a meeting held at University of Chicago on July 10, 1974.

- Costen, R. C., and Fujita, T. T., 1975d⁶. Theory for the drift of severe local storms with application to the storm of April 21, 1961, near Topeka, Kansas, *in* Preprints, 9th Conference on Severe Local Storms: American Meteorological Society, Boston, p. 124-130. [October, 1975]
- Fujita, T. T., 1975e. New evidence from April 3-4, 1974 tornadoes. Preprints, 9th Conference on Severe Local Storms, Norman. American Meteorological Society, Boston, p. 248-255. [October, 1975] (also issued as SMRP 127)
- Abbey, R. F., Jr., and Fujita, T. T., 1975f. Use of tornado path lengths and gradations of damage to assess tornado intensity probabilities, *in* Preprints, 9th Conference on Severe Local Storms, Norman: American Meteorological Society, Boston, p. 286-293. [October, 1975] (also SMRP 138)
- Fujita, T. T., Pearson, A. D., and Ludlum, D. M., 1975g. Long-term fluctuations of tornado activities, *in* Preprints, 9th Conference on Severe Local Storms, Norman: American Meteorological Society, Boston, p. 417-423. [October, 1975] (also issued as SMRP 128)
- Fujita, T. T., 1976a. Graphic examples of tornadoes: Bulletin of the American Meteorological Society, v. 57(4), p. 401-412. [published April, 1976] (also SMRP 142)
- Fujita, T. T., Forbes, G. S., and Umenhofer, T. A., 1976b. Close-up view of 20 March 1976 tornadoes: sinking cloud tops to suction vortices: *Weatherwise*, v. 29(3), p. 116-131, 145. [published June, 1976] (also SMRP 139)
- Fujita, T. T., et al., 1976c. Photogrammetric analysis of tornadoes, A. Introduction and summary, *in* Peterson, R. E., ed., *Proceedings of the Symposium on Tornadoes, Assessment of Knowledge and Implications for Man*. Institute for Disaster Research, Texas Technological University, Lubbock, p. 43-44. [June, 1976] (also issued as SMRP 140)
- Fujita, T. T., and Pearson, A. D., 1976d. Photogrammetric analysis of tornadoes, B. Glossary of whirlwind, *in* Peterson, R. E., ed., *Proceedings of the Symposium on Tornadoes, Assessment of Knowledge and Implications for Man*: Institute for Disaster Research, Texas Technological University, Lubbock, p. 45-47. [June, 1976] (also issued as SMRP 140a)
- Fujita, T. T., Forbes, G. S., Umenhofer, T. A., Pearl, E. W., and Tecson, J. J., 1976e. Photogrammetric analysis of tornadoes, C. Parameters for computing windspeed, *in* Peterson, R. E., ed., *Proceedings of the Symposium on Tornadoes, Assessment of Knowledge and Implications for Man*: Institute for Disaster Research, Texas Technological University, Lubbock, p. 48-52. [June, 1976] (also issued as SMRP 140b)
- Fujita, T. T., and Forbes, G. S., 1976f. Photogrammetric analysis of tornadoes, D. Three scales of motion involving tornadoes, *in* Peterson, R. E., ed., *Proceedings of the Symposium on Tornadoes, Assessment of Knowledge and Implications for Man*: Institute for Disaster Research, Texas Technological University, Lubbock, p. 53-57. [June, 1976] (also issued as SMRP 140c)
- Fujita, T. T., 1976g. Photogrammetric analysis of tornadoes, F. History of suction vortices, *in* Peterson, R. E., ed., *Proceedings of the Symposium on Tornadoes, Assessment of Knowledge and Implications for Man*: Institute for Disaster Research, Texas Technological University, Lubbock, p. 78-88. [June, 1976] (also issued as SMRP 140e)
- Fujita, T. T., 1976h. Recent concepts of tornado winds, *in* Ishizaki, H., and Chiu, A. N. L., eds., *Wind Effects on Structures*: University of Tokyo Press, Tokyo, p. 3-14. [presented September, 1974; published late 1976]

⁶ Also exists as a preprint issued by NASA.

- Tecson, J. J., and Fujita, T. T., 1976i. Cloud-motion vectors over the GATE area computed by McIDAS and METRACOM methods, *in* Proceedings of the symposium on meteorological observations from space: Their contribution to the first GARP global experiment: National Center for Atmospheric Research, Boulder, p. 245-247. [September, 1976]
- Fujita, T. T., 1976j. Old and new concept of tornadoes: Preprint 2784, ASCE Annual Convention and Exposition, Philadelphia, 10 pp. [September, 1976] (also SMRP 141)
- Fujita, T. T., and Byers, H. R., 1977a. Spearhead echo and downburst in the crash of an airliner: *Monthly Weather Review*, v. 105(2), p. 129-146. [submitted June, 1976; published February, 1977] (also SMRP 147)
- Fujita, T. T., 1977b. Anticyclonic tornadoes: *Weatherwise*, v. 30(2), p. 51-64. [published April, 1977] (reprinted as SMRP 146)
- Fujita, T. T., and Tecson, J. J., 1977c. Mesoscale wake clouds in Skylab photographs, *in* Skylab explores the Earth: NASA, SP-380, p. 463-477. [published 1977] (also SMRP 158)
- Fujita, T. T., 1977d⁷. Downburst, in Safety Needs in the Terminal Environment, *in* Proceedings of the 30th Annual International Air Safety Seminar, Ottawa: Flight Safety Foundation, Inc., Arlington, p. 184-188 [presented September, 1977]
- Tecson, J. J., Umenhofer, T. A., and Fujita, T. T., 1977e. Thunderstorm-associated cloud motions as computed from 5-minute SMS pictures, *in* Preprints, 10th Conference on Severe Local Storms, Omaha. American Meteorological Society, Boston, p. 22-29. [October, 1977] (also SMRP 151)
- Fujita, T. T., Hjelmfelt, M. R., and Changnon, S. A., 1977f. Mesoanalysis of record Chicago rainstorm using radar, satellite, and raingauge data, *in* Preprints, 10th Conference on Severe Local Storms, Omaha: American Meteorological Society, Boston, p. 65-72. [October, 1977] (also SMRP 148)
- Fujita, T. T., and Caracena, F., 1977g. Common denominator of three weather-related aircraft accidents, *in* Preprints, 10th Conference on Severe Local Storms, Omaha: American Meteorological Society, Boston, p. 135-142. [October, 1977] (also SMRP 152)
- Umenhofer, T. A., and Fujita, T. T., 1977h. Great Bend tornadoes of August 30, 1974, *in* Preprints, 10th Conference on Severe Local Storms, Omaha: American Meteorological Society, Boston, p. 457-462. [October, 1977] (also SMRP 149)
- Abbey, R. F., Jr., and Fujita, T. T., 1977i. Regionalization of the tornado hazard, *in* Preprints, 10th Conference on Severe Local Storms, Omaha: American Meteorological Society, Boston, p. 526-533. [October, 1977]
- Fujita, T. T., and Caracena, F., 1977j. An analysis of three weather-related aircraft accidents: *Bulletin of the American Meteorological Society*, v. 58(11), p. 1164-1181. [published November, 1977] (first issued as SMRP 145)
- Fujita, T. T., 1977k. Chicago Rainstorm: NASA Conference Publication 2029, 3rd NASA Administrative Wx and Climate Program Science Review, p. 17-21. [November, 1977] (also SMRP 157)
- Bedard, A. J., Jr., and Fujita, T. T., 1978. An omnidirectional, tilt insensitive wind speed threshold detector: Preprints, 4th Symposium on Meteorological Observations and Instrumentation, p. 83-86. [April, 1978] (also SMRP 163)

⁷ "Preprints", published by SMRP as a technical report, have the Independence Day downburst map enclosed.

- Fujita, T. T., 1979a. Wind loading and missile generation in tornado, *in* Brebbia, C. A., Gould, P. L., and Munro, J., eds., *Environmental Forces on Engineering Structures*: Pentech Press, London, p. 165-179. [July, 1979] (first issued as SMRP 170)
- Tecson, J. J., Fujita, T. T., and Abbey, R. F., Jr., 1979b. Statistics of U.S. tornadoes based on the DAPPLE (Damage Area Per Path Length) tornado tape, *in* Preprints, 11th Conference on Severe Local Storms, Kansas City: American Meteorological Society, Boston, p. 227-234. [October, 1979] (also SMRP 174)
- Abbey, R. F., Jr., and Fujita, T. T., 1979c. The DAPPLE method for computing tornado hazard probabilities: refinements and theoretical considerations, *in* Preprints, 11th Conference on Severe Local Storms, Kansas City: American Meteorological Society, Boston, p. 241-248. [October, 1979] (also SMRP 177)
- Fujita, T. T., 1979d. Objectives, operation, and results of Project NIMROD, *in* Preprints, 11th Conference on Severe Local Storms, Kansas City: American Meteorological Society, Boston, p. 259-266. [October, 1979] (also SMRP 171)
- Wilson, J. W., and Fujita, T. T., 1979e. Vertical cross section through a rotating thunderstorm by Doppler radar, *in* Preprints, 11th Conference on Severe Local Storms, Kansas City: American Meteorological Society, Boston, p. 447-452. [October, 1979]
- Stiegler, D. J., Fujita, T. T., and Wakimoto, R. M., 1979f. The effect of side lobes upon measured Doppler velocities in weak echo regions, *in* Preprints, 11th Conference on Severe Local Storms, Kansas City: American Meteorological Society, Boston, p. 509-514. [October, 1979] (also SMRP 175)
- Fujita, T. T., 1979g. Thunderstorm, *in* Lapedes, D. N., ed., *McGraw-Hill Yearbook of Science & Technology 1979*: McGraw Hill Book Company, New York, p. 393-394. [published, 1979]
- Fujita, T. T., Wakimoto, R. M., and Stiegler, D. J., 1980a. Mesoscale damage patterns of Hurricane Frederic in relation to enhanced SMS imagery, *in* Preprints, 19th Conference on Radar Meteorology, Miami: American Meteorological Society, Boston, p. 48-55. [April, 1980] (also SMRP 180)
- Fujita, T. T., 1980b. Downbursts and microbursts -- an aviation hazard, *in* Preprints, 19th Conference on Radar Meteorology, Miami: American Meteorological Society, Boston, p. 94-101. [April, 1980] (also SMRP 179)
- Alberty, R. L., Burgess, D. W., and Fujita, T. T., 1980c. Severe weather events of 10 April 1979: *Bulletin of the American Meteorological Society*, v. 61(9), p. 1033-1034. [September, 1980]
- Fujita, T. T., 1981d. In search of mesoscale wind fields in landfalling hurricanes, *in* *Selected Papers*, 13th Technical Conference on Hurricanes and Tropical Meteorology, Miami Beach: American Meteorological Society, Boston, p. 43-57. [December, 1980; publication date 1981] (also issued as SMRP 189)
- Fujita, T. T., 1981e⁸. Tornado wind effects on the Grand Gulf cooling tower. *Proceedings*, 2nd Conference on Dynamic Response of Structures: American Society of Civil Engineers, Atlanta, p. 555-566.
- Fujita, T. T., 1981f. Microbursts as an aviation wind shear hazard: *AIAA 19th Aerospace Sciences Meeting*, St. Louis, 9 pp. [January, 1981] (also SMRP 188)

⁸ Sometimes cited erroneously as SMRP 187.

- Fujita, T. T., 1981g. Mesoscale aspects of convective storms, *in* Proceedings of the IAMAP Symposium, Hamburg, Germany: ESA SP-165, p. 3-10. [published June, 1981] (also reprinted as SMRP 191)
- Fujita, T. T., and Wakimoto, R. M., 1981h. Five scales of airflow associated with a series of downbursts on 16 July 1980: *Monthly Weather Review*, v. 109(7), p. 1438-1456. [submitted September, 1980; published July, 1981] (also SMRP 184)
- Fujita, T. T., 1981i. Tornadoes and downbursts in the context of generalized planetary scales: *Journal of the Atmospheric Sciences*, v. 38(8), p. 1511-1534. [submitted December, 1980; published August, 1981] (also SMRP 190)
- Abbey, R. F., Jr., and Fujita, T. T., 1981j. Tornadoes as represented by the tornado outbreak of 3-4 April 1974, *in* Kessler, E., ed., *The Thunderstorm in Human Affairs*, v. 1: U.S. Department of Commerce, NOAA, p. 47-84. [September, 1981]
- Fujita, T. T., 1981k. Downburst (X. Z. Zhang, translator). Qi Xiang Press, Beijing, 99 pp. (in Chinese) [translation of SMRP 156] [published November, 1981]
- Fujita, T. T., 1981l. Response to Comments on Scales of Airflow by D. W. McCann: *Bulletin of the American Meteorological Society*, v. 62, p. 1714-1715.
- McCarthy, J., Wilson, J. W., and Fujita, T. T., 1982a. The Joint Airport Weather Studies Project: *Bulletin of the American Meteorological Society*, v. 63(1), p. 15-22. [published January, 1982]
- Tecson, J. J., Fujita, T. T., and Abbey, R. F., Jr., 1982b. Climatological mapping of U.S. tornadoes during 1916-1980, *in* Preprints, 12th Conference on Severe Local Storms, San Antonio: American Meteorological Society, Boston, p. 38-41. [January, 1982] (also SMRP 193a)
- Abbey, R. F., Jr., Fujita, T. T., and McDonald, J. R., 1982c. Meteorological and engineering analysis of the Bossier City, Louisiana, tornado of 3 December 1978, *in* Preprints, 12th Conference on Severe Local Storms, San Antonio: American Meteorological Society, Boston, p. 135-138. [January, 1982]
- Fujita, T. T., 1982d. Infrared, stereo-height, cloud-motion, and radar-echo analysis of SESAME-day thunderstorms, *in* Preprints, 12th Conference on Severe Local Storms, San Antonio: American Meteorological Society, Boston, p. 213-216. [January, 1982] (also SMRP 193b)
- Stiegler, D. J., and Fujita, T. T., 1982e. A detailed analysis of the San Marcos, Texas tornado induced by Hurricane "Allen" on 10 August, 1980, *in* Preprints, 12th Conference on Severe Local Storms, San Antonio: American Meteorological Society, Boston, p. 371-374. [January, 1982] (also SMRP 193d)
- Fujita, T. T., and Wakimoto, R. M., 1982f. Anticyclonic tornadoes in 1980 and 1981, *in* Preprints, 12th Conference on Severe Local Storms, San Antonio: American Meteorological Society, Boston, p. 401-404. [January, 1982] (also SMRP 193c)
- Fujita, T. T., 1982g. Principle of stereoscopic height computations and their applications to stratospheric cirrus over severe thunderstorms: *Journal of the Meteorological Society of Japan*, v. 60(1), p. 355-368. [submitted September, 1981; published February, 1982] (also SMRP 192)
- Fujita, T. T., and Wakimoto, R. M., 1982h. Effects of miso- and mesoscale obstructions on PAM winds obtained during project NIMROD: *Journal of Applied Meteorology*, v. 21(6), p. 840-858. [submitted December, 1981; published June, 1982] (also SMRP 195)

- Fujita, T. T., and Dodge, J. C., 1982i. Applications of stereoscopic height computations from dual geosynchronous satellite data/joint NASA-Japan stereo project, *in* Hasler, A. F., ed., *Weather satellites: stereoscopy: Proceedings of the Tropical Meeting of the COSPAR Interdisciplinary Scientific Commission A*, Ottawa. [June, 1982] (also SMRP 198)
- Fujita, T. T., and Dodge, J. C., 1983a. Applications of stereoscopic height computations from dual geosynchronous satellite data/joint NASA-Japan stereo project: *Advances in Space Research*, v. 2, p. 153-160. (also SMRP 198)
- Fujita, T. T., 1983b. Microburst characteristics. 2nd Wind Shear Meeting, NCAR, 24 pp. [May, 1983]
- Fujita, T. T., and Wakimoto, R. M., 1983c. Microbursts in JAWS depicted by Doppler radar, PAM, and aerial photographs, *in* Preprints, 21st Conference on Radar Meteorology, Edmonton: American Meteorological Society, Boston, p. 638-645. [September, 1983] (also SMRP 200)
- Fujita, T. T., and Wakimoto, R. M., 1983d. JAWS microbursts revealed by triple-Doppler radar, aircraft, and PAM data, *in* Preprints, 13th Conference on Severe Local Storms, Tulsa: American Meteorological Society, Boston, p. 97-100. [October, 1983] (also SMRP 201)
- Tecson, J. J., Fujita, T. T., and Abbey, R. F., Jr., 1983e. Statistical analyses of U.S. tornadoes based on the geographic distribution of population, community, and other parameters, *in* Preprints, 13th Conference on Severe Local Storms, Tulsa. American Meteorological Society, Boston, p. 120-123. [October, 1983] (also SMRP 202)
- Stiegler, D. J., and Fujita, T. T., 1984. Mesoscale structure of Hurricane Alicia, *in* Proceedings of Specialty Conference "Hurricane Alicia". Galveston: American Society of Civil Engineers, p. 21-39. [August, 1984] (also SMRP 209)
- Fujita, T., 1985a⁹. The Downburst (T. Ueda, translator). Japan Airlines Pilots' Association, Tokyo, 160 pp. (in Japanese) [May, 1985] [translation of SMRP 210]
- Tecson, J. J., and Fujita, T. T., 1985b. Automated mapping of maximum tornado windspeeds in the United States as a function of occurrence probabilities, *in* Preprints, 14th Conference on Severe Local Storms, Indianapolis: American Meteorological Society, Boston, p. 21-24. [October, 1985] (also SMRP 212)
- Fujita, T. T., and Stiegler, D., 1985c. Detailed analysis of the tornado outbreak in the Carolinas by using radar, satellite, and aerial survey data, *in* Preprints, 14th Conference on Severe Local Storms, Indianapolis: American Meteorological Society, Boston, p. 271-274. [October, 1985] (also SMRP 211)
- Wolfson, M. M., DiStefano, J. T., and Fujita, T. T., 1985d. Low-altitude wind shear characteristics in the Memphis, TN area based on MESONET and LLWAS data, *in* Preprints, 14th Conference on Severe Local Storms, Indianapolis: American Meteorological Society, Boston, p. 322-327. [October, 1985]
- Fujita, T. T., 1986. Mesoscale classifications: their history and their application to forecasting, *in* Ray, P. S., ed., *Mesoscale Meteorology and Forecasting*: American Meteorological Society, Boston, p. 18-35. [presented 1984; published 1986]
- Wolfson, M. M., and Fujita, T. T., 1987. Correcting wind speed measurements for site obstructions, *in* Preprint volume, 6th Symposium on Meteorological Observations and Instrumentation, New Orleans: American Meteorological Society, Boston, p. 358-363. [January, 1987]

⁹ Also issued in a boxed set with the original SMRP 210 hardcover.

- Smith, B. E., Fujita, T. T., and Partacz, J. W., 1988a. A method of correcting PAM winds based on obstructions and measured windspeed, *in* Preprints, 15th Conference on Severe Local Storms, Baltimore: American Meteorological Society, Boston, p. 339-342. [February, 1988] (also SMRP 220)
- Fujita, T. T., and Black, P. G., 1988b. Monrovia microburst of 20 July 1986: a study of "SST", *in* Preprints, 15th Conference on Severe Local Storms, Baltimore: American Meteorological Society, Boston, p. 380-383. [February, 1988] (also SMRP 219)
- Fujita, T. T., 1989a. Downbursts: meteorological features and wind field characteristics, *in* Kareem, A., ed., Proceedings of the 6th U.S. National Conference on Wind Engineering, v. 1, Houston: University of Houston, Houston, p. TLI1-TLI12. [March, 1989] (first issued as SMRP 227)
- Wolfson, M. M., and Fujita, T. T., 1989b. Correcting wind speed measurements for site obstructions: *Journal of Atmospheric and Oceanic Technology*, v. 6(2), p. 343-352. [submitted February, 1988; published April, 1989]
- Fujita, T. T., 1989c. The Teton-Yellowstone Tornado of 21 July 1987: *Monthly Weather Review*, v. 117(9), p. 1913-1940. [submitted August, 1988; published, September, 1989] (first issued as SMRP 226)
- Fujita, T. T., and McCarthy, J., 1990a. The application of weather radar to aviation meteorology, *in* Atlas, D., ed., *Radar in Meteorology*: American Meteorological Society, Boston, p. 657-681. [presented November, 1987; published 1990]
- Fujita, T. T., 1990b. Downbursts: meteorological features and wind field characteristics: *Journal of Wind Engineering and Industrial Aerodynamics*, v. 36, p. 75-86. [presented March, 1989; published 1990] (first issued as SMRP 227 and in a preprint volume for the 6th U.S. National Conference on Wind Engineering, Houston)
- Fujita, T. T., 1990c. The development of mesometeorology: *Tenki (Weather)*, v. 37(12), 803-807. (in Japanese) [published December, 1990]
- Fujita, T., 1991a. On the distribution and structure of thunderstorms, part 1. *Flight Safety*, (74), p. 18-24. (in Japanese) [February, 1991]
- Fujita, T., 1991b. On the distribution and structure of thunderstorms, part 2. *Flight Safety*, (75), p. 16-24. (in Japanese) [April, 1991]
- Fujita, T. T., 1992a. An overview of mesoscale prediction, *in* Preprints, Symposium on Weather Forecasting, Atlanta: American Meteorological Society, Boston, p. J49-J58. [January, 1992] (first issued as SMRP 237)
- Fujita, T. T., 1992b. Interpretation of cloud winds, *in* Proceedings, Workshop on Wind Extraction from Operational Meteorological Satellite Data, Washington: EUMETSAT, Darmstadt, Germany, p. 99-104. [presented September, 1991; published 1992] (also SMRP 233)
- Fujita, T., 1993a. Microburst at Haneda Airport and Mobara tornado of 11 December, 1990: *Weather Service Bulletin*, v. 60(1), p. 31-42. (in Japanese) [presented November, 1991; published January, 1993]
- Fujita, T. T., 1993b. Plainfield tornado of August 28, 1990: American Geophysical Union, *Geophysical Monograph* 79, p. 1-17. [presented April, 1991; published 1993] (first issued as SMRP 234)
- Fujita, T. T., and Smith, B. E., 1993c. Aerial survey and photography of tornado and microburst damage: American Geophysical Union, *Geophysical Monograph* 79, p. 479-493. [presented April, 1991; published 1993] (first issued as SMRP 235)

- Fujita, T. T., 1993d. Wind fields of Andrew, Omar, and Iniki, 1992, *in* Preprints, 20th Conference on Hurricanes and Tropical Meteorology, San Antonio: American Meteorological Society, Boston, p. 46-49. [May, 1993] (also SMRP 241)
- Fujita, T., 1993e. Damage survey of Hurricane Andrew in South Florida: Storm Data, v. 34(8), p. 21-25. [dated August, 1992; published October, 1993] (also SMRP 240a)
- Fujita, T., 1993f. Damage survey of Hurricane Iniki in Kauai: Storm Data, v. 34(9), p. 15-27. [dated September, 1992; published November, 1993] (also SMRP 240b)
- Fujita, T. T., 1993g. Ground-truth experiment of cloud-drift winds, *in* Proceedings, 2nd International Wind Workshop, Tokyo: EUMETSAT, Darmstadt-Eberstadt, Germany, p. 21-28. [December, 1993]



IV. TECHNICAL REPORTS AND UNPUBLISHED MANUSCRIPTS

The reports and manuscripts listed here were prepared for various funding agencies (public and corporate), as supplementary material for presentation at seminars and workshops, or remained unpublished in varying stages of completion (unfinished, draft, not-submitted, submitted but rejected). We have included the Reports of the Meteorological Laboratory of the Kyushu Institute of Technology here as they are mimeographed reports, probably issued in small quantities. This list is likely to be incomplete. Persons wanting copies of privileged reports to corporations should obtain permission from the appropriate contractor.

- Fujita, T., 1947. Warm isobaric analysis. (in Japanese)
- Fujita, T., 1948. On the meteorology of the 88% solar eclipse observed in northern Kyushu on May 9, 1948: Report of Research, no. 3, 51 pp. (in Japanese)
- Fujita, T., 1949a. Research in Micrometeorology, part 2, Fine structure of a cold front and its environment: Presentation appendix, p. 1-8. (in Japanese)
- Fujita, T., 1949b. Research on Micrometeorology, part 3, On the analysis of Typhoon Della: Presentation appendix, p. 9-26. (in Japanese)
- Fujita, T., 1950a. On the average weather map about the time of Typhoon Della: Western District Meteorological Research Association, Fall, 1950, p. 1-5. (in Japanese)
- Fujita, T., 1950b. On the precipitation from Typhoon Della: Western District Meteorological Research Association, Fall, 1950, p. 6-12. (in Japanese)
- Fujita, T., 1950c. On the interaction between Typhoon Della and the Westery Trough: Western District Meteorological Research Association, Fall, 1950, p. 13-16. (in Japanese)
- Fujita, T., 1951. On the decay of a typhoon center: Report of Meteorological Laboratory, Kyushu Institute of Technology, v. 1, p. 1-11.
- Fujita, T., 1952. Tropical storms in Japan: Report of Meteorological Laboratory, Kyushu Institute of Technology, v. 1.
- Fujita, T., 1952a. Analytical study of typhoons: DSc dissertation, University of Tokyo, Tokyo.
- Fujita, T., 1952b.¹ Studies on typhoon and convection: Report of Meteorological Laboratory, Kyushu Institute of Technology, v. 2(1-4), 206 pp. [June, 1952]
- a) Pressure distribution within typhoon, p. 1-68.
 - b) Temperature distribution within typhoon, p. 69-98.
 - c) New theory on convection problems, p. 99-157.
 - d) Examples of analyses, p. 158-205.
- Fujita, T., 1953. Analysis of winds in typhoons: Reports of the Meteorological Laboratory, Kyushu Institute of Technology, v. 3.
- Fujita, T., 1954. Studies of convection in a tropical air mass: Text of seminar, Department of Meteorology, University of Chicago, 12 pp. [January, 1954]
- Fujita, T., 1957. Mountain mesometeorology: Final report to Muntalp Foundation, 35 pp. [December, 1957]
- a) Fujita, T., Fuquay, D., and O'Dell, C., Observations of thunderstorm on July 29, 1957, p. 1-2.
 - b) Fujita, T., Mutch, R., and Schaefer, J., Temperature and wind observation along the Lolo Valley road, p. 3-5.

¹ This is likely to be the "formal" publication of Ted's DSc dissertation, "Analytical Study of Typhoons". It is composed of the four parts which were also issued separately in July, 1952.

- c) Fujita, T., and O'Dell, C., Study of ground clutters by the Marpeak road, p. 6-7.
- d) Fujita, T., and Omoto, Y., Mesoanalysis of July 29-30, 1957 case, p. 8-12.
- Fujita, T., 1958. Mesoanalysis of hurricane rainbands and tornado cyclone: nearing system of tornadoes: University of Chicago, Department of Meteorology, 21 pp. [November, 1958] (combines SLSP 16 and 17)
- Arnold, J. E., and Fujita, T., 1964a. Errors induced in satellite photogrids due to incorrect input information, Text for session L, Inter-regional WMO seminar on the interpretation and use of meteorological satellite data, November 27 to December 8, 1964: University of Chicago, Department of the Geophysical Sciences, Satellite and Mesometeorology Research Project, 16 pp. [November, 1964]
- Fujita, T., 1964b. Mesometeorological interpretation of satellite data, Text for sessions N through Q, Inter-regional WMO seminar on the interpretation and use of meteorological satellite data, November 27 to December 8, 1964: University of Chicago, Department of the Geophysical Sciences, Satellite and Mesometeorology Research Project, 19 pp + figs. [November, 1964]
 - a) Fujita, T., with Gargard, S. Y., Mesoscale convection associated with a Typhoon, session Na, p. 2-3 + figs.
 - b) Fujita, T., with Arnold, J. E., Mesoscale features of the typhoon cirrus shield, session Nb, p. 4-6 + figs.
 - c) Fujita, T., with Black, P. G., Convection over Japan in summer, session Oa, p. 7-9 + figs.
 - d) Fujita, T., with Black, P. G., and Tecson, J. J., tropical land convection over the Philippines, session Ob, p. 10-11 + figs.
 - e) Fujita, T., with Lyons, W. A., North Pacific fog, session P, p. 12-14 + figs.
 - f) Fujita, T., with Gargard, S. Y., Formation of clouds over the Sea of Japan, session Qa, p. 15-16 + figs.
 - g) Fujita, T., with Tsuchiya, T., Influence of the Japanese islands upon the winter monsoon clouds, session Qb, p. 17-19 + figs.
- Fujita T., 1964c. Special conference on satellite photo-rectification, 6 pp.
- Tsuchiya, K., and Tecson, J. J., 1964d². Mesoscale analysis of surface temperatures and albedo with the TIROS III meteorological satellite, 8 pp. [November, 1964]
- Fujita, T., 1965a³. Tornado educational monograph: For American Meteorological Society, unpublished, 14 pp.
- Fujita, T., 1965b. Instruments and equipment constructed in part or wholly supported under National Science Foundation NSF - G 18984: University of Chicago, Department of Geophysical Sciences, Satellite and Mesometeorology Research Project, 10 pp. [April, 1965]
- Browning, K. A., and Fujita, T., 1965c. A family outbreak of severe local storms: A comprehensive study of the storms in Oklahoma on May 26, 1963, part I: U.S. Air Force Cambridge Research Laboratories, Special Reports no. 32, 346 pp.
- Fujita, T., 1966a. Detailed investigation of mesometeorological conditions of the squall line of August 6-7, 1966 which crossed the air route between Kansas City, Missouri and Omaha, Nebraska, part I: Text and figures: Prepared for British Aircraft Corporation (U.S.A.), Inc., 29 pp. [November, 1966]

² Draft manuscript, originally intended to be SMRP 42.

³ Ted started to write a volume for the AMS educational monograph series. Only the first two chapters and figures were completed.

- Fujita, T., 1966b. Detailed investigation of mesometeorological conditions of the squall line of August 6-7, 1966 which crossed the air route between Kansas City, Missouri and Omaha, Nebraska, part II: References – Reproductions: Prepared for British Aircraft Corporation (U.S.A.), Inc., 30 pp. [November, 1966]
- Fujita, T., 1967a. Detailed investigation of mesometeorological conditions of the squall line of August 6-7, 1966 which crossed the air route between Kansas City, Missouri and Omaha, Nebraska, part III: Turbulence in relation to the squall line: Prepared for British Aircraft Corporation (U.S.A.), Inc., 27 pp. [March, 1967]
- Fujita, T. T., 1967b⁴. Tornadoes around the world, 50 pp.
- Atlas, D., and Fujita, T. T., [c. 1969]⁵. Severe weather events of 21 April, 1967 in the vicinity of Polk Bros. store, 8530 So. Cottage Grove Ave., Chicago, Illinois: Unpublished manuscript, 22 pp.
- Fujita, T. T., [c. early 1970a]⁶. Meteorological applications of geosynchronous satellites, 4 pp.
- Fujita, T. T., 1970b⁷. Tornado parameters, 2 pp. [April, 1970]
- Fujita, T. T., 1970c. Preliminary investigation of Lubbock tornado of May 11, 1970: Memorandum to agencies, 9 pp. [May, 1970]
- Fujita, T. T., 1970d⁸. Problems associated with understanding tornadoes, forecasting their occurrence, and their potential modification, 8 pp. [May, 1970]
- Fujita, T. T., 1971⁹. Satellite and terrestrial photogrammetric study of clouds over the area of the Barbados Oceanographic and Meteorological Experiment; Final report under NSF grant GA-4203: University of Chicago, Satellite and Meteorology Research Project, 47 pp.
- Fujita, T. T., 1972a.¹⁰ Cloud model characteristics and infrared sensing of clouds: SMRP Unpublished Manuscript 72A, 46 pp. [July, 1972]
- Fujita, T. T., 1972b. Fotografías y movimiento de nubes de la Haracane Camille, Agosto 15-20, 1969: Joint UN/WMO Panel and Training Seminar on the Uses of Meteorological Satellite Data, Mexico City, 19 pp. [December, 1972]
- Fujita, T. T., Oliver, V. J., and Fujita, K., 1973a¹¹. Arc clouds and island arcs, 14 pp.
- Fujita, T. T., [1973b]¹². Experimental classification of tornadoes in F P P scale, 15 pp.
- Fujita, T. T., 1974a¹³. Nowcasts of tornadoes, *in* Research on short-term weather phenomena. Hearings before the Subcommittee on Space Science and Applications, 93rd Congress, 1st session on H.R. 9811: U.S. Government Printing Office, Washington DC, p. 35-43. [presented November, 1973]

⁴ The start of what was to be a 224 page book on tornadoes. Only the first three chapters were completed.

⁵ Date is uncertain, but it must be after November, 1968 when Ted took U.S. citizenship and started using the initials "T. T."

⁶ Labeled "outline of paper."

⁷ Outline of a talk presented at the University of Wisconsin, Madison, on April 27, 1970.

⁸ Report to Ad Hoc Committee on the Third NSB Report, NSF.

⁹ Includes SMRP 90 and 95.

¹⁰ Unclear why this was assigned an "A" number.

¹¹ Submitted to, but rejected by, Weatherwise.

¹² Incomplete manuscript.

¹³ Also printed for separate distribution, 8 pp.

- Fujita, T. T., 1974b¹⁴. Tornado cyclone project, *in* Research on short-term weather phenomena. Hearings before the Subcommittee on Space Science and Applications, 93rd Congress, 1st session on H.R. 9811: U.S. Government Printing Office, Washington DC, p. 68-87. [presented November, 1973]
- Fujita, T. T., 1974c. Satellite meteorological analysis of tornado outbreak on May 5, 1971: Walter A. Bohan Company, Park Ridge, IL. [published 1974]
- Fujita, T. T., 1974d. Evaluation of the usefulness of current meteorological satellite imagery: Report to U.S. Army Research Office, 38 pp. [June, 1974]
- Fujita, T. T., and Tecson, J. J., 1974e¹⁵. Mesoscale wave clouds in Skylab pictures, Final Report to NASA: University of Chicago, 34 pp. [August, 1974]
- Fujita, T. T., 1975. Graphic examples of tornadoes, *in* Special report to U.S. House of Representatives, Subcommittee on Environment and the Atmosphere: American Meteorological Society, 9th Conference on Severe Local Storms, Norman, Oklahoma, 13 pp.
- Fujita, T. T., 1976. Re-evaluation of the design basis tornado at the HPFL facility, Richland, Washington: Manuscript submitted to ERDA.
- Caracena, F., and Fujita, T. T., 1977a. Meteorological study of aircraft accident at Philadelphia airport on June 23, 1976. Unpublished manuscript.
- Fujita, T. T., 1977b. Review of severe weather meteorology at Westinghouse Electric Corporation, Cheswick, Pennsylvania: Report to Argonne National Laboratory. [February, 1977]
- Fujita, T. T., 1977c. Review of severe weather meteorology at Babcock & Wilcox Company, Leechburg, Pennsylvania: Report to Argonne National Laboratory. [January, 1977]
- Fujita, T. T., 1977d. Review of severe weather meteorology at Exxon Nuclear Company, Richland, Washington: Manuscript submitted to NRC.
- Fujita, T. T., 1977e. Review of severe weather meteorology at General Electric Company, Vallejos, California: Manuscript submitted to NRC.
- Fujita, T. T., 1977f. Review of severe weather meteorology at Rockwell International, Chatsworth, California: Manuscript submitted to NRC.
- Fujita, T. T., [1977g]¹⁶. Tornado structure, 71 pp.
- Fujita, T. T., 1977h. Preliminary report on the Northern Wisconsin storm of the 4th of July, 1977, 11 pp.
- Fujita, T. T., [1977i?]. Thunderstorm downbursts – an important structural and aviation hazard, 8 pp.
- Fujita, T. T., 1977j. Tornado structure for engineering applications with design-basis tornado model (DBT-77): Report to Argonne National Laboratory, 111 pp. [August, 1977] (also SMRP 153)
- Fujita, T. T., and Srivastava, R. C., 1977k. Project NIMROD (First report): University of Chicago, 12 pp. [November, 1977]
- Fujita, T. T., and Caracena, F., 1977l. An analysis of three weather-related aircraft accidents [translation of SMRP 145]: Japan Airlines Pilot's Association, 39 pp. (in Japanese) [November, 1977]
- Fujita, T. T., and Forbes, G., 1978a¹⁷. Operation summary of NIMROD network, 73 pp. [June, 1978]

¹⁴ Also printed for separate distribution, 18 pp.

¹⁵ First version of SMRP 158.

¹⁶ Early draft of SMRP 153.

¹⁷ Includes summaries for the first 11 days of operation, May 12, 1978 – June 11, 1978.

- Fujita, T. T., 1978b¹⁸. Workbook of tornadoes and high winds for engineering applications (Preliminary version): University of Chicago, 111 pp. [July, 1978]
- Fujita, T. T., 1978c. Tornado and high-wind risks at Argonne National Laboratory, Argonne, Illinois: Report for LLNL, 36 pp. [August, 1978]
- Fujita, T. T., 1978d. Tornado and high-wind risks at Rocky Flats, Colorado: Report for LLNL, 28 pp. [August, 1978]
- Fujita, T. T., 1978e. Tornado damage at the Grand Gulf, Mississippi power plant site: aerial survey: U.S. Nuclear Regulatory Commission, NUREG/CR-0383, p. 1-18. [submitted May, 1978; published September, 1978] (first issued as SMRP 162)
- Fujita, T. T., 1978f. Tornado and high-wind risks at Monsanto Research Corporation, Miamisburg, Ohio: Report for Monsanto Research Corporation, 25 pp. [September, 1978]
- Fujita, T. T., 1979g¹⁹. Effects of the April 17, 1978 tornado on the Grand Gulf cooling tower, part II: Report for Rath's, Rath's & Johnson, Inc., Hinsdale, 27 pp. [January, 1979]
- Fujita, T. T., 1979a. Tornado and high-wind risks at Idaho National Engineering Laboratory and Argonne National Laboratory, Idaho: Report 1 to LLNL, 22 pp. [May, 1979]
- Fujita, T. T., 1979b. Tornado and high-wind risks at Oak Ridge National Laboratory, Tennessee: Report 2 for LLNL, 23 pp. [May, 1979]
- Fujita, T. T., 1979c. Tornado and high-wind risks at Hanford Project site, Washington: Report 3 for LLNL, 22 pp. [May, 1979]
- Fujita, T. T., 1979d²⁰. Characteristics of the Red River Valley tornadoes as of April 15, 1979, 5 pp.
- Fujita, T. T., 1979e. Damage map of the Red River Valley tornado outbreak of April 10, 1979: Submitted to NOAA, 14 pp.
- Fujita, T. T., 1979f. Tornado and high-wind risks at Pantex plant, Texas: Report 4 for LLNL, 39 pp. [September, 1979]
- Fujita, T. T., 1979g. Tornado and high-wind risks at Paducah Gaseous Plant, Kentucky: Report 5 for LLNL, 36 pp. [September, 1979]
- Fujita, T. T., 1979h. Tornado and high-wind risks at FMPC, Portsmouth, and Mound Sites, Ohio: Report 6 for LLNL, 44 pp. [September, 1979]
- Tecson, J. J., Fujita, T. T., and Abbey, R. F., Jr., and McDonald, J. R., 1979i. Supplement to Statistics of U.S. tornadoes based on the DAPPLE (Damage Area Per Path Length) tornado tape, 4 pp. [October, 1979]
- Fujita, T. T., 1980a. Additional studies on Oak ridge: Report 1 for LLNL, 25 pp. [January, 1980]
- Fujita, T. T., 1980b. Tornado and high-wind hazards at Savannah River plant, South Carolina: Report for 1 LLNL, 68 pp. [after January, 1980]
- Fujita, T. T., 1980c. Tornado and high-wind hazards at Sandia Laboratory, New Mexico: Report 2 for LLNL, 65 pp. [March, 1980]
- Fujita, T. T., 1980d. Tornado and high-wind hazards at Los Alamos Laboratory, New Mexico: Report for 3 LLNL, 37 pp. [May, 1980]
- Fujita, T. T., 1980e. Tornado and high-wind hazards at Livermore Laboratory, California: Report 4 for LLNL, 31 pp. [September, 1979] (also SMRP 186)

¹⁸ Preliminary version of SMRP 165 distributed at the 1st Tornadoes and High Winds Workshop, July 10, 1978 at Argonne.

¹⁹ Hand annotated SMRP 162A.

²⁰ Attachment to a two page letter to "Sponsoring and cooperating agencies" mailed April 16, 1979.

- Fujita, T. T., 1980f. Tornado and high-wind hazards at the Lawrence Berkeley Laboratory and Stanford Linear Accelerator sites in California: Report 5 for LLNL, 40 pp. [September, 1979] (also SMRP 185)
- Fujita, T. T., and Wakimoto, R. M., 1980g²¹. Aerial photogrammetric analysis of the Grand Island tornadoes on 3 June 1980, 7 pp.
- Fujita, T. T., Stiegler, D. J., and Black, P. G., [1981a?]. Landfall of hurricane Allen of August 1980, 12 pp.
- Fujita, T. T., 1981b. Tornado and high-wind hazards at Brookhaven National Laboratory site, New York: Report 1 for LLNL, 39 pp. [February, 1981]
- Fujita, T. T., 1981c. Tornado and high-wind hazards at Nevada test site, Nevada: Report 2 for LLNL, 37 pp. [February, 1981]
- Fujita, T. T., 1981d. Tornado and high-wind hazards at Princeton Plasma Physics Laboratory, N.J.: Report 3 for LLNL, 43 pp. [1981]
- Fujita, T. T., 1981e. Tornado and high-winds hazards at Western New York State Nuclear Service Center, West Valley, New York: Report 4 for LLNL, 63 pp. [1981]
- McCarthy, J., Wilson, J. W., and Fujita, T. T., 1981f. The JAWS project: NCAR, 21 pp.
- Fujita, T. T., 1981g. Tornado and high-wind hazards at Liquid Metal Engineering Center, California: Report for LLNL, 50 pp. [December, 1981]
- Fujita, T. T., 1981h. Tornado and high-wind hazards at Bendix, Kansas City Plant, Missouri: Report for LLNL, 47 pp. [December, 1981]
- Fujita, T. T., 1982a. Failure mechanism of the crane inside the Grand Gulf cooling tower: Report for Raths, Raths & Johnson, Inc., Hinsdale, 84 pp. [February, 1982]
- Fujita, T. T., [early 1982b]. Overshooting tops of severe thunderstorms revealed by lear jet, satellite, and radar observations, 57 pp.²²
- Fujita, T. T., 1982c. Response to the review on site-specific studies of tornadoes and high winds: Report for LLNL, 24 pp. [September, 1982]
- McCarthy, J., Wilson, J., and Fujita, T. T., 1982d. The Joint Airport Weather Studies (JAWS) project: NASA/MSFC FY82 Atmospheric Processes Research Review, p. 18-21.
- Fujita, T. T., 1982e. Analysis of satellite data for sensor improvement (Detection of severe storms from space): NASA/MSFC FY82 Atmospheric Processes Research Review, p. 81-82.
- Fujita, T. T., 1983a. Tornado and high-winds hazards at Pinellas plant site, Florida: Report for LLNL, 46 pp. [January, 1983]
- [Fujita, T. T.], [1983b]. List of hurricanes analyzed and published in Storm Data (April to November, 1982): Report to NOAA, 18 pp. [February, 1983]
- Fujita, T. T., 1983c²³. Detection of microbursts by single doppler radar, 9 pp. [March, 1983]
- [Fujita, T. T.], [c. late 1983d]. 1983 lear jet experiment based at Grand Island, NE. 5 pp.
- Fujita, T. T., 1984a. Andrews AFB microburst on 01 August 1983. The impact of weather on aviation safety. Hearings before the subcommittee on investigations and oversight, 97th Congress, 1st Session and 98th Congress, 1st Session: U.S. Government Printing Office, p. 475-477.
- [Fujita, T. T.], [1984b]. List of hurricanes analyzed and published in Storm Data (January to September, 1983): Report to NOAA, 16 pp. [February, 1984]

²¹ This document is sometimes labeled SMRP 187.

²² Revised version of SMRP 117 submitted to Journal of Atmospheric Sciences, but apparently rejected.

²³ Outline of a talk given March 30, 1983, at NWS headquarters.

- Fujita, T. T., 1984c. Support of CYGNA's tornado parameter study for the San Onofre nuclear generating station: Report for CYGNA Energy Services, San Francisco, '88 pp. [March, 1984]
- Fujita, T. T., [c. 1984d]. Downburst storms, microbursts and macrobursts, reports of NIMROD and JAWS projects: Report to NSF [?], c. 170 pp.
- [Fujita, T. T.], [1985a]. List of hurricanes analyzed and published in Storm Data (October, 1983 to September, 1984): Report to NOAA, 28 pp. [February, 1985]
- Fujita, T. T., 1985b²⁴. Possible orbital parameters of the space station polar platform, 12 pp. [May, 1985]
- Fujita, T. T., 1985c. Statistics of U.S. downbursts and microbursts in NIMROD, JAWS, and FLOWS, 17 pp.
- Fujita, T. T., 1985d. MIST component of COHMEX experiment: For status review of COHMEX, NASA HQ (OSSA), 16 pp. [September, 1985]
- Fujita, T. T., Tecson, J., and Smith, B., 1987. Training materials on downburst phenomena: Report to NOAA, 19 pp. + 73 slides [June, 1987]
- Fujita, T. T., 1988. Application of NOAA P-3 flights to ERICA implementation: Report to ONR, 9 pp. [February, 1988]
- [Fujita, T. T., and Stiegler, D. S.], [1989a]. Mini-studies of satellite photos showing parent clouds of hurricanes, tornadoes, downbursts, and snowstorms – Storm Data, outstanding storms of the month: Report to NOAA, 135 pp.
- Fujita, T. T., 1989b. Summary of findings regarding July 2, 1986 weather at Triangle Mobile Home Park in Jacksonville, North Carolina. Report for Climatological Consulting Corporation, Asheville, NC, 19 pp.
- [Fujita, T. T.], [c. 1989c]. Cessna flights over hurricane Hugo damage, 5 pp.
- [Fujita, T. T.], [c. 1989d]²⁵. Allendale, Illinois tornado of January 7, 1989, 7 pp. + Storm Data.
- [Fujita, T. T.], [1990a]²⁵. Preliminary study of the Raleigh, North Carolina tornado of November 28, 1988, 11 pp. + 20 slides.
- [Fujita, T. T.], [1990b]²⁵. Bomb cyclone at 12 GMT on 15 December 1987, 4 pp. + 20 slides.
- [Fujita, T. T.], [1990c]²⁵. Satellite winds of the Rayleigh tornado clouds, 10 pp.
- Fujita, T. T., 1990d. Nature of the Orange County storm on November 16, 1989, Report to the Governor of the State of New York: University of Chicago, 21 pp. [February, 1990]
- [Fujita, T. T., and Steigler, D. S.], [1990e]. Mini-studies of satellite photos showing parent clouds of hurricanes, tornadoes, downbursts, and snowstorms – Storm Data, outstanding storms of the month: Report to NOAA, 143 pp.
- Fujita, T. T., 1990f. Review meeting of microburst-detection algorithms on 18 April 1990 at the University of Chicago: Report to MIT Lincoln Labs, 4 pp. [April, 1990]
- Fujita, T. T., 1990g. Analysis of satellite data for sensor improvement, Final Report for NASA Grant NGR 14-001-008, 01 October 1962 to 30 June 1990: University of Chicago, 31 pp. [August, 1990]
- Fujita, T. T., 1991. Fujita Wind Research Laboratory: Department of Geophysical Sciences, University of Chicago, 12 pp.
- Fujita, T. T., 1992a. Microburst, the most probable cause of the CASA accident near Mayaguez Airport: Preliminary report for Climatological Consulting Corporation, Asheville, NC, 41 pp. [October, 1992]

²⁴ Originally intended to be SMRP 211.

²⁵ Seminar notes and figures (some with slides) prepared in late 1989 and early 1990.

- Fujita, T. T., Haggard, W. H., and Bohan, W. A., 1992b. Puerto Rico's weather on June 7, 1992 related to the crash of Executive Air flight 5456 at Mayaguez, Puerto Rico: Climatological Consulting Corporation, Asheville, NC, 39 pp. [November, 1992]
- Fujita, T. T., 1993a²⁶. Climatic variation of storms. NASA/MSFC FY92 Earth Science and applications program research review: NASA Conference Publication 3184, p. 53-55. [January, 1993]
- [Fujita T. T.], 1993b. Climatic variation of storms. Progress report to NASA Grant NAG8-886 for 1 August 1992 – 31 July 1993, 15 pp. [March, 1993]
- Fujita, T. T., 1993c. Precursor, detection, and warning of microbursts. Final Technical report to NCAR, NSF/UCAR grant S9129, 47 pp. [June, 1993]
- Fujita, T. T., 1994a. Climatic variation of storms: Final Report to NASA, 7 pp. + attachments. [April, 1994]
- Haggard, W. H., and Fujita, T. T., 1994b. The LLWAS at Charlotte, North Carolina in relation to the microburst of July 2, 1994, Report to the Air Line Pilots Association: Climatological Consulting Corporation, Asheville, NC, 37 pp. [September, 1994]
- Fujita, T. T., 1995a. Storm data project, in Abbey, R. F., Jr., and Prude, M. L., eds., Marine Meteorology Abstract Book FY 1994: Office of Naval Research 32295-19, p. 47-51.
- Fujita, T. T., and Haggard, W. H., 1995b. The microburst at Charlotte, North Carolina in relation to the crash of USAir 1016 on July 2, 1994, Report to the Air Line Pilots Association: Climatological Consulting Corporation, Asheville, NC, 26 pp. [January, 1995]
- Fujita, T. T., 1996a. Storm climatology, in Abbey, R. F., Jr., ed., Marine Meteorology Abstract Book FY 1995: Office of Naval Research 32296-6, p. 25-29.
- Fujita, T. T., 1996b. Specific findings as of November 25, 1996. Report to ONR, 24 pp. [November, 1996]

Periodic Technical Reports

Many funding agencies require monthly, quarterly, or semi-annual technical or progress reports. In Ted's case, these are usually short reports, but often contain results which were not presented elsewhere. This list is not complete. Others are listed under SLSPs.

- Fujita, T. T., Meteorological interpretation of satellite radiation data. Semi-annual status reports. National Aeronautics and Space Administration grant NsG 333 and NGR-14-001 008. October, 1962 – September, 1971.
- Fujita, T. T., Analysis of satellite data for sensor improvement. Semi-annual status reports. National Aeronautics and Space Administration grant NGR-14-001-008. October, 1971 – September, 1978.
- Fujita, T. T., Tornado parameters for nuclear power plants. Quarterly and annual reports. Atomic Energy Commission contract AT(11-1)-2507. November, 1974 – September, 1982.
- Fujita, T. T., Tornado windspeed assessment. Quarterly and annual reports. U.S. Nuclear Regulatory Commission contract 04-82-004. August, 1982 – January, 1987.
- Fujita, T. T., Study of Microburst detection features. Monthly informal and final reports. MIT Lincoln Laboratory contract F 19628-85-C-0002. July, 1987 – September, 1990.

²⁶ Also published in a abstract book for the review meeting at Huntsville, Alabama, July, 1992.

V. MAPS

Maps produced by SMRP were usually very detailed and in full color. Print runs varied; some were widely distributed, others were produced in very small numbers on color copiers. Most of the latter were appended to reports, but some were also individually distributed.

- Fujita, T. T.¹, [1971]. Damaging wind scale by Fujita. Excerpt from SMRP 91. [February, 1971]
 [Fujita, T. T.] [late 1970s-a]². Photographs and descriptions of the Fujita tornado scale [F0 – F5]. Black and white.
 [Fujita, T. T.] [late 1970s-b]³. An example of Fujita-scale damage. [no date, c. late 1970s]
 Fujita, T. T., 1974. Superoutbreak tornadoes of April 3-4, 1974, Preliminary edition: University of Chicago Press. [dated September, 1974]
 Fujita, T. T., 1975⁴. Superoutbreak tornadoes of April 3-4, 1974. Final edition: University of Chicago. [dated April, 1975]
 Fujita, T. T., ed., 1976a⁵. A centennial look at Chicago area tornadoes, 1876-1976. [dated March, 1976]
 Fujita, T. T., and Pearson, A. D., 1976b⁶. U.S. tornadoes 1930-1974: University of Chicago. [dated January, 1976]
 Fujita, T. T., 1976c⁶. U.S. tornadoes 1930 – 1974: University of Chicago. [dated January, 1976; shipped April, 1976]
 a) with latitude and longitude grid
 b) without latitude and longitude grid
 Fujita, T. T., [1977]⁷. Independence Day downbursts.
 Fujita, T. T., Forbes, G. S., Stiegler, D., Pearl, E. W., and Wakimoto, R., [1978]⁸. Examples of downbursts, 8 pp.
 Fujita, T. T., and Wakimoto, R. M. [1979a]⁹, Red River Valley tornado outbreak of April 10, 1979: University of Chicago.
 Fujita, T. T., Wakimoto, R., and Stiegler, D., 1979b¹⁰. Damage map of Hurricane Frederic, Sept. 12-13, 1979: University of Chicago. [dated November, 1979]
 Fujita, T. T., 1980a. U.S. tornadoes, 1930 – 1978: University of Chicago. [dated March, 1980]

¹ On photographic paper. Both a color and black and white version exist; the latter is entitled “Fujita scale for damaging wind” and makes no reference to SMRP 91, although it uses the same photographs.

² 11 x 17” poster style presentation.

³ 11 x 17” poster style presentation.

⁴ The final edition differs from the preliminary edition primarily in not listing sources. Some F-scale assignments have been altered and a description of the FPP scale appears. A latitude-longitude grid was also added to the final edition. Some copies of the final edition were sent out with an information sheet and a questionnaire.

⁵ Back printed with a short note entitled “The Chicago area tornadoes” by T. T. Fujita.

⁶ These maps differ slightly in size, use different color schemes, have different lists of contributors, and have minor differences in tornado paths; the first has no topography.

⁷ Included in Downburst preprint. [September, 1977]

⁸ Included in SMRP 156 [May, 1978].

⁹ Two printings exist; one is larger and has lighter numbers.

¹⁰ Two printings exist, one with culture in orange, and one in yellow.

- Fujita, T. T., Wakimoto, R. M., Abbey, R. F., Jr., and McDonald, J. R. 1980b. Grand Island, Nebraska tornadoes (June 3, 1980), SMRP Color Map 801. [dated September, 1980]
- Fujita, T. T., [c. 1982]. Distribution of tornadoes 1916 – 1981. Storm Data.
- Fujita, T. T., [1983a]. Chicago area tornadoes 1876 – 1982. University of Chicago.
- Stiegler, D. J., [1983b]. Damage map of hurricane Alicia, August 17-18, 1983. Atlantic Oceanographic and Meteorological Laboratory.
- Fujita, T. T., 1984. FAA/Lincoln Lab wind-shear mesonet at Memphis, Tennessee. [dated July, 1984]
- Stiegler, D. J., [1985a]. Damage map of hurricane Diana, September 11-13, 1984. Atlantic Oceanographic and Meteorological Laboratory.
- Fujita, T., [1985b]. Flows mesonet at Memphis.
- Stiegler, D. J., and Smith, B. E., [1986]. Damage map of hurricane Elena, September 2, 1985. Atlantic Oceanographic and Meteorological Laboratory.
- Fujita, T. [c. 1988]¹¹. Are U.S. Tornadoes Changing ? yes or No !: University of Chicago.
- Fujita, T. T., [1989]¹¹. Preliminary damage map of the Allendale, Illinois Tornado on January 7, 1989. University of Chicago.
- Fujita, T. T., [1990]. Hurricane Hugo (1989): University of Chicago.
- Fujita, T., 1993a¹¹. First and second winds¹²: University of Chicago. [dated May, 1993]
- Fujita, T. T., 1993b. Damage map of Hurricane Andrew on August 24, 1992. Storm Data, v. 34(8).
- Fujita, T. T., 1993c. Hurricane Iniki 11 Sep 1992. Storm Data, v. 34(9).
- Fujita, T. T.¹¹, 1998. Fujita El Niño Scale. Addendum to Mystery of El Niño and Hurricanes, SMRP 249. [January, 1998]

¹¹ Issued in color photocopy form.

¹² Hurricane Andrew survey.

VI. SMRP FILMS

Although some SMRP films were numbered, most were not. There are additional short segments of film. Film numbers 1 – 7, 14 – 17, and 77-2 have been assigned.

- 1 Soumi, V., Parish, R., and Fujita, T., 1968. "First Color Movie of the Planet Earth". Color Photos Televised by NASA Spacecraft ATS III Viewed from 23,000 mi. over Brazil on November 18, 1967. [400 ft.]
- 2 Fujita, T., Soumi, V., and Oliver, V., 1968. "A Product of ATS III Tornado Watch Experiment." Tornado situations on April 19, 1968. [400 ft.]
- 3 Soumi, V., Fujita, T., and Oliver, V., 1968¹. "April 19, 1968 The Day of the Greenwood Tornado." Includes Michigan Tornado of April 23, 1968. [400 ft.]
- 4 Soumi, V., Fujita, T., and Oliver, V., and Gentry, R., [1968]. "1968 Hurricane Watch Experiment." Hurricane Abby in June, 1968. [400 ft.]
- 5 Soumi, V., Fujita, T., and Oliver, V., and Gentry, R. [1968]. "Close-up Views from Hurricane Watch 1968." Selected views of small areas from Hurricane Watch 1968. [400 ft.]
- 6 Fujita, T., 1968. "Fishbone-like Jet Stream Cirrus." From ATS III, Atlantic off Florida May 24, 1968, and Caribbean April 3, 1968.
- 7 Soumi, V., and Fujita, T., [c. 1969?]. "ATS Views of Tropical Storms Over the Pacific"
- 8 [SMRP], 1969. "Summary of ATS III Cloud Analysis." [250 ft., October, 1969]
- 9 Fujita, T., 1969. "Hurricane Camille." Application of Enhanced ATS Pictures for Hurricane Research, 6th Hurricane Conference, December 4, 1969. [200 ft.]
- 10 [SMRP], 1970. "Hook Echo 3 April 1953." CPS-9 Radar. [March, 1970]
- 11 Fujita, T., 1970. "The Fargo Tornado June 20, 1957." SMRP film 011. [April, 1970]
- 12 [SMRP], 1970. "Total Solar Eclipse." March 7, 1970, from ATS I and II.
- 13 Fujita, T., 1970. "Lubbock Tornadoes of 11 May 1970." SMRP film 013. [June, 1970]
- 14 Fujita, T., 1972. "Overshooting Tops of Thunderstorms: May 12 1972." [180 ft.]
- 15 Fujita, T., T., and Gentry, R. C., 1972. "Hurricane Ginger 1971." An Appendix to SMRP 106. [180 ft., August, 1972]
- 16 Fujita, T., 1974². "Multi-Suction Tornado of April 3, 1974 Near Muncie, IN"
- 17 Fujita, T., 1976. "Lemont – Argonne Tornado." June 13, 1976.
- 77-1 Fujita, T., Oliver, V., and Purdom, J. F., 1977. "The Day of Birmingham Tornado Southern Air Accident." SMS/Goes pictures at 3-minute intervals on April 4, 1977.
- 77-2 Fujita, T., Forbes, G., Umenhofer, T., and Stiegler, D., 1977. "Lear-Jet Flight Over Tornado Producing Thunderstorm: 23 Feb 1977 50 mi. NE of Jackson, MS." [130 ft.]

¹ Also called "Square clouds." Reissued Spring, 1968 as "April 23, 1968 Tornado Watch Experiment: A Product of ATS III."

² Produced by rectifying and re-shooting film by Mr. Wally Hubbard of WISH-TV News, Indianapolis, IN.

VII. AUTHOR INDEX

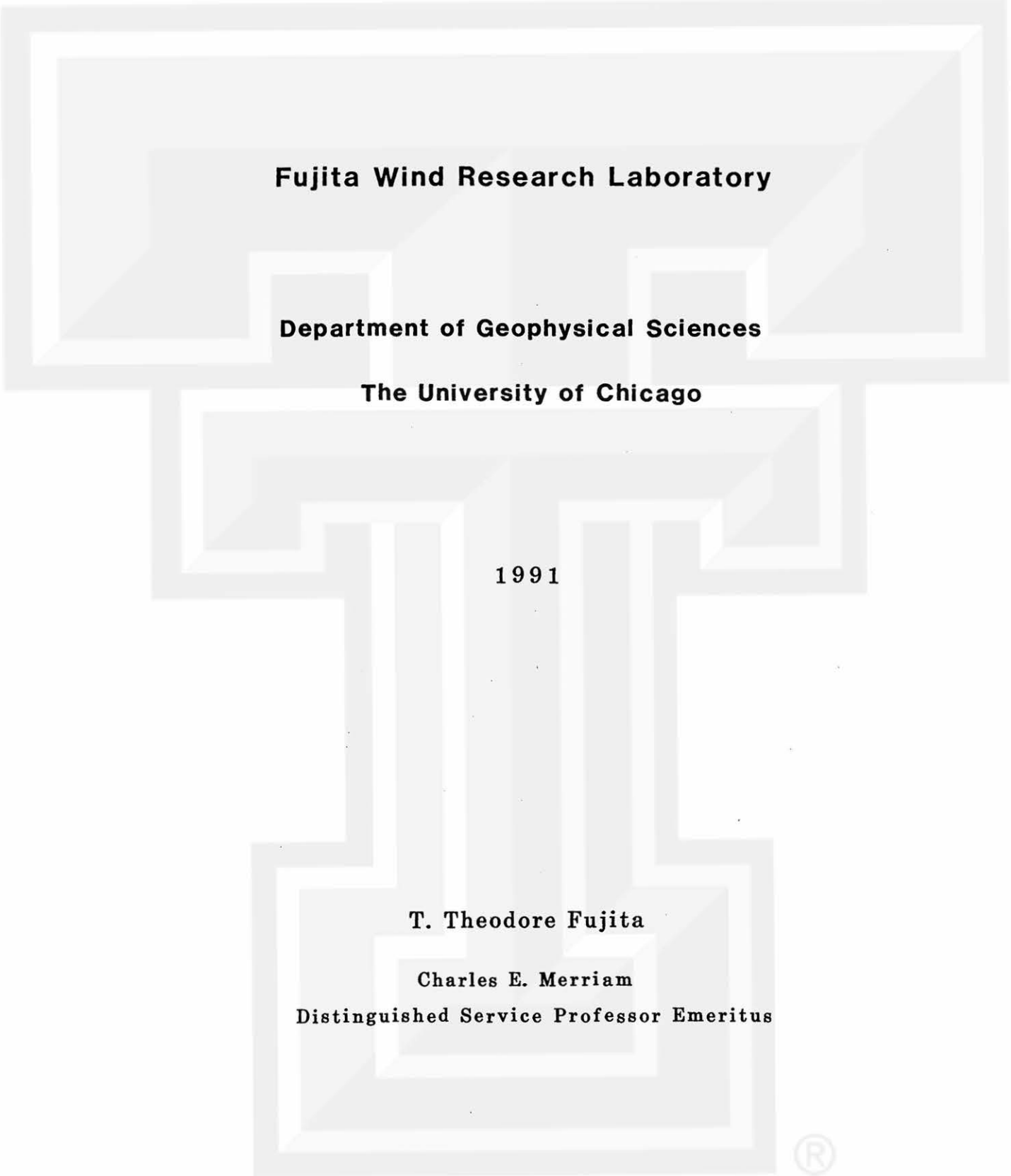
This index lists all authors except Ted, since he is an author on all papers listed in sections III and IV and on most publications in sections I, II, V, and VI. SMRP and SLSP reports are listed by report number; SMRP reports have no prefix, SLSP reports have the prefix L. All other publications are listed by date (last two digits of year, only) with prefix P for formal publications (section III), R for technical reports (section IV), and M for maps (section V); e.g., P41a is Section III, 1941a. Films (section VI) are given by film number with a F prefix.

Abbey, R. F., Jr.	138, 174, 177, 193, 202, 252, P75f, P77i, P79b, P79c, P81j, P82b, P82c, P83e, R79i, M80b
Alberty, R. L.	P80c
Arakawa, H.	68, P72b
Arnold, J. E.	16, 28, 32, 64, 65, P63b, P63g, P65a, P65b, R64a, R64b
Atlas, D.	R69
Balogun, E. E.	109, 134, 160
Bandeen, W.	40, P65e
Baralt, G.	72, L44, P68d
Bedard, A. J., Jr.	163, P78
Black, P. G.	59, 69, 93, 219, P65b, P67e, P70c, P88b, R64b, R81a
Bohan, W. A.	R92b
Bonner, W. D.	22, 26, 31, 38, 43, L40A, L40B
Bradbury, D. L.	33, 37, 51, 52, 69, 70, 71, 79, 80, 86, 96, P66b, P67e, P69c, P70a
Brown, H. A.	4, 21, 23, L4, L7, L10, L12, L21A, L21B, L21C, L21D, L22A, L22B, L22C, L22D, L26, L28, L29, L40A, L40B, P58c
Brown, R. A.	1, 41, 42, 46, 54, 61, L37, L44, L45, P62c
Browning, K. A.	R65c
Bunting, J.	75
Burgess, D. W.	P80c
Byers, H. R.	147, L30, P62a, P77a
Caracena, F.	145, 152, P77g, P77j, R77a, R77l
Chang, Y.-M.	110, 116, 121, 122, P73b
Changnon, S. A.	148, P77f
Costen, R. C.	P75d
Dellert, G. T., Jr.	9, P62e, P63c
DiStefano, J. T.	216, P85d
Dodge, J. C.	198, P82i, P83a
Dundas, R.	149
Fletcher, W. L.	18, 20
Forbes, G. S.	124, 129, 132, 139, 140, 150, 161, 167, 172, 197, 251, P74c, P76b, P76e, P76f, R78a, M78, F77-2
Fujimura, S.	P41a
Fujita, K.	115, 252, R73a
Fujita, Sekiya	239A, 239B
Fujita, Sumiko	249
Fuquay, D.	R57

Gargard, S. Y.	P65b, R64b
Gentry, R. C.	83, P70d, F4, F5, F15
Goldman, J. L.	5, 10, 24, 39, L22B, L22C, L22D, L38, P63f
Grandoso, H.	48, 62, P68a
Haggard, W. H.	R92b, R94b, R95b
Hass, W. A.	9, P62e, P63c
Hjelmfelt, M. R.	148, P77f
Hull, L.	71
Imai, I.	60, P65d, P67a
Izawa, T.	60, 76, 78, P67a, P69b, P69d
Kawaguchi, K.	242
Kusano, K.	P41a
Lamb, D.	75
Larsen, S. H. H.	18, 20
Levine, N. J.	178
Loesch, A. G.	59
Ludlum, D. M.	128, P75g
Lyons, R. D.	95
Lyons, W. A.	57, 66, 74, P65b, P68b, R64a
Madden, R. A.	77
McDonald, J. R.	P82c, R79i, M80b
McCarthy, J.	P82a, P90a, R81f, R82d
McGurk, P. D.	176
Mendez, R.	73
Murino, C.	71
Mutch, R.	R57
Nasta, R.	47
Newstein, H.	P56
Newton, C. W.	L5
Ninomiya, K.	14, 81, 85
O'Dell, C.	R57
Oliver, V. J.	R73a, F2, F3, F4, F5, F77-1
Omoto, Y.	L9, L15, L21A, L21B, L21C, L25, L27, R57
Osawa, K.	L29, L32, L41
Parish, R.	F1
Partacz, J. W.	213, 220, 221, 239C, 242, 244, 246A, 246B, 248, 249A, 250, 252, P88a
Pearl, E. W.	104, 112, 114, 119, 123, 130, 135, 140, 143, P75c, P76e, M78
Pearson, A. D.	113, 128, 140, P73f, P75g, P76d, M76b
Pedersen, F.	19
Peterson, E. C.	214
Purdom, J. F.	F77-1
Rabbe, Å.	35, 58
Reap, R. M.	44, 45, 63
Schaal, L. A.	P71b
Schaefer, J.	R57
Shanahan, J. A.	P71c

Sheets, R. C.	83, P70d
Shenk, W. E.	114, 130, P75c
Shimada, M.	101, P72c
Shitara, H.	103
Skillman, W.	130
Smith, B. E.	203, 213, 220, 221, 235, P88a, P93c, R87, M86
Soumi, V.	F1, F2, F3, F4, F5, F7
Srivastava, R. C.	R77k
Stiegler, D. J.	168, 175, 180, 193, 209, 211, 239C, 242, 249A, 250, 252, P79f, P80a, P82e, P84, P85c, R81a, R89a, R90e, M78, M79b, M83b, M85a, M86, F77-2
Styber, K. A.	6, L37, L42, P62c
Tecson, J. J.	87, 94, 110, 116, 121, 125, 134, 136, 140, 151, 154, 158, 174, 178, 193, 202, 212, P65b, P71b, P72a, P73b, P76e, P76i, P77c, P77e, P79b, P82b, P83e, P85b, R64b, R64d, R74e, R79i, R87
Tepper, M.	P56
Tsuchiya, K.	55, 56, 68, 72, 101, P65b, P67b, P67c, P68d, P72b, P72c, R64b, R64d
Umenhofer, T. A.	126, 132, 139, 140, 149, 151, P76b, P76e, P77e, P77h, F77-2
Ushijima, T.	9, 12, 25, L43, P61, P62e, P63c
Van Thullenar, C. F.	86, P70a
Wakimoto, R. M.	161, 175, 180, 184, 187, 193, 194, 195, 196, 197, 200, 201, 206, 207, P79f, P80a, P81h, P82f, P82h, P83c, P83d, R80g, M78, M79a, M79b, M80b
Waranauskas, B. R.	203, 251
Watanabe, K.	60, 68, 78, 101, P67a, P69d, P72b, P72c
Wilson, J. W.	74, 173, P79e, P82a, R81f, R82d
Wolfson, M. M.	216, P85d, P87, P89b
Yoshida, N.	P41a





Fujita Wind Research Laboratory

Department of Geophysical Sciences

The University of Chicago

1991

T. Theodore Fujita

Charles E. Merriam

Distinguished Service Professor Emeritus



HISTORY OF THE FUJITA PROJECT

1956 - 61 Mesometeorology Research Project
 1962 - 87 Satellite and Mesometeorology Research Project
 1988 - Wind Research Laboratory

(312) 702-8112	Ted Fujita	Rm 461
(312) 702-0305	Ted's FAX	Rm 459
(312) 702-8114	Office	Rm 469
(312) 702-8136	Laboratory	Rm 471

WRL OFFICES AND EQUIPMENT AS OF 1991

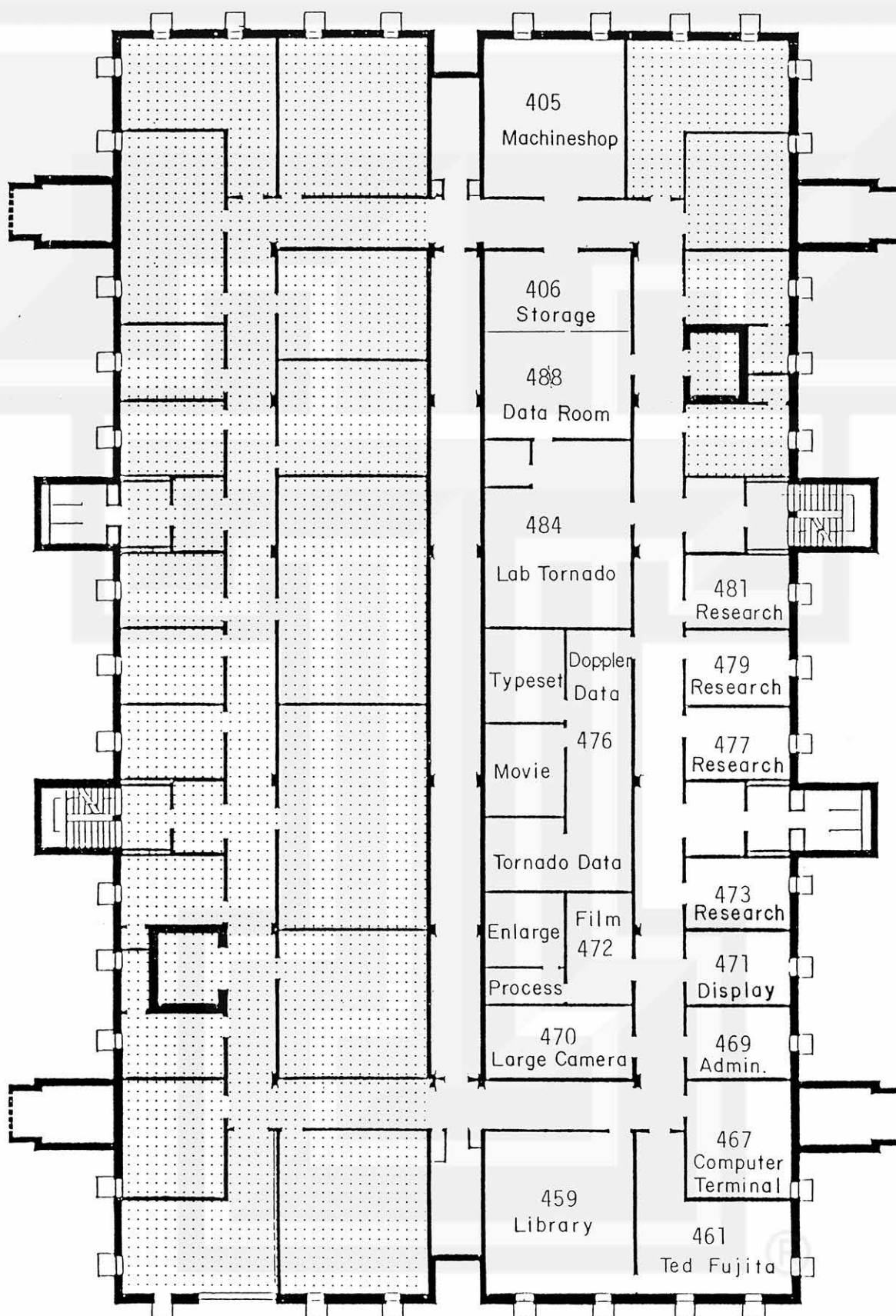
Equipment value appr. \$1 million

Rm 405	Machine Shop, Lathe, etc.
Rm 406	Storage for machine shop and field experiment
Rm 459	Library Ted'd FAX, color Xerox, projection equipment
Rm 461	Ted's office
Rm 467	Computer terminal
Rm 469	Administrative/secretarial office
Rm 470	Camera room Large camera, video, etc.
Rm 471	Research display
Rm 472	Enlargers, film processing, and printing
Rm 473	Research office
Rm 476	Typeset, animation camera, 16-35 mm converter, slide duplicator, slide camera set up, multiple-exposure camera, tornado data since 1916, aerial survey data, etc.
Rm 477	Research office
Rm 479	Research office
Rm 481	Research office
Rm 484	Laboratory tornado model for teaching
Rm 488	Meteorological data storage

16 Rooms for WRL use

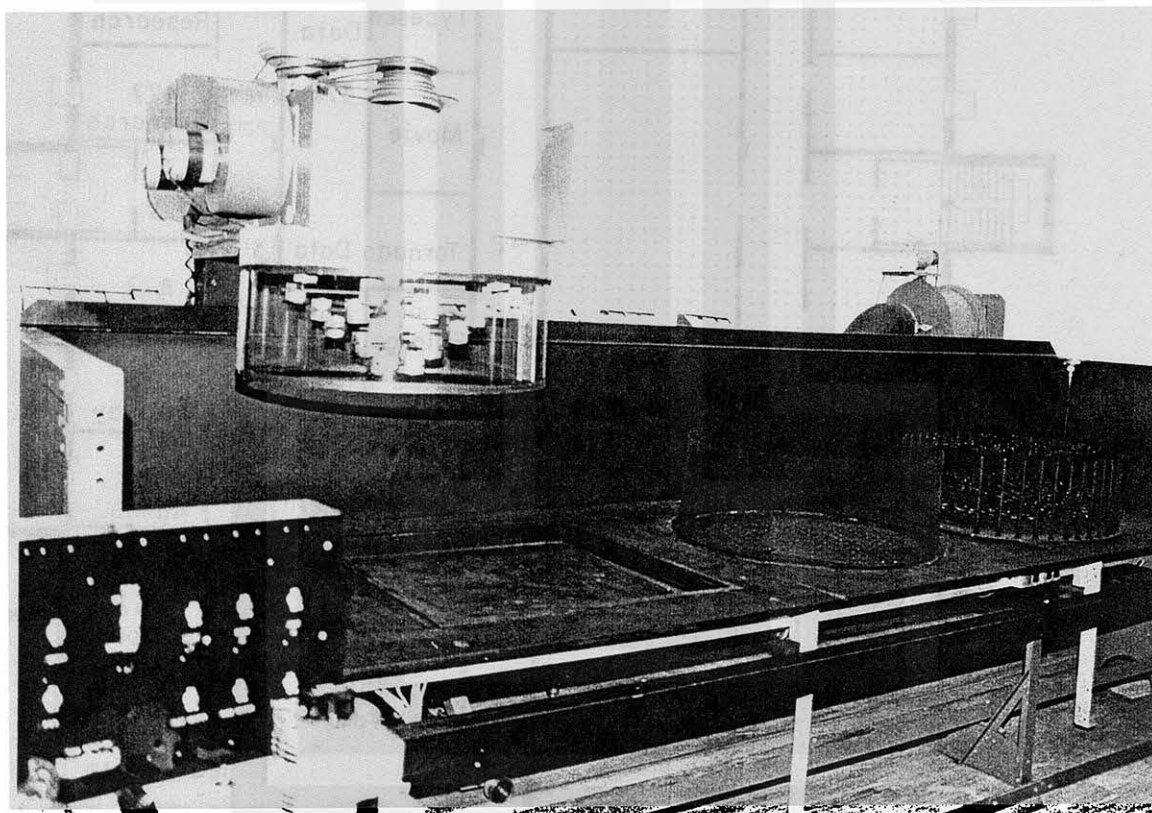


Fujita Wind Research Laboratory

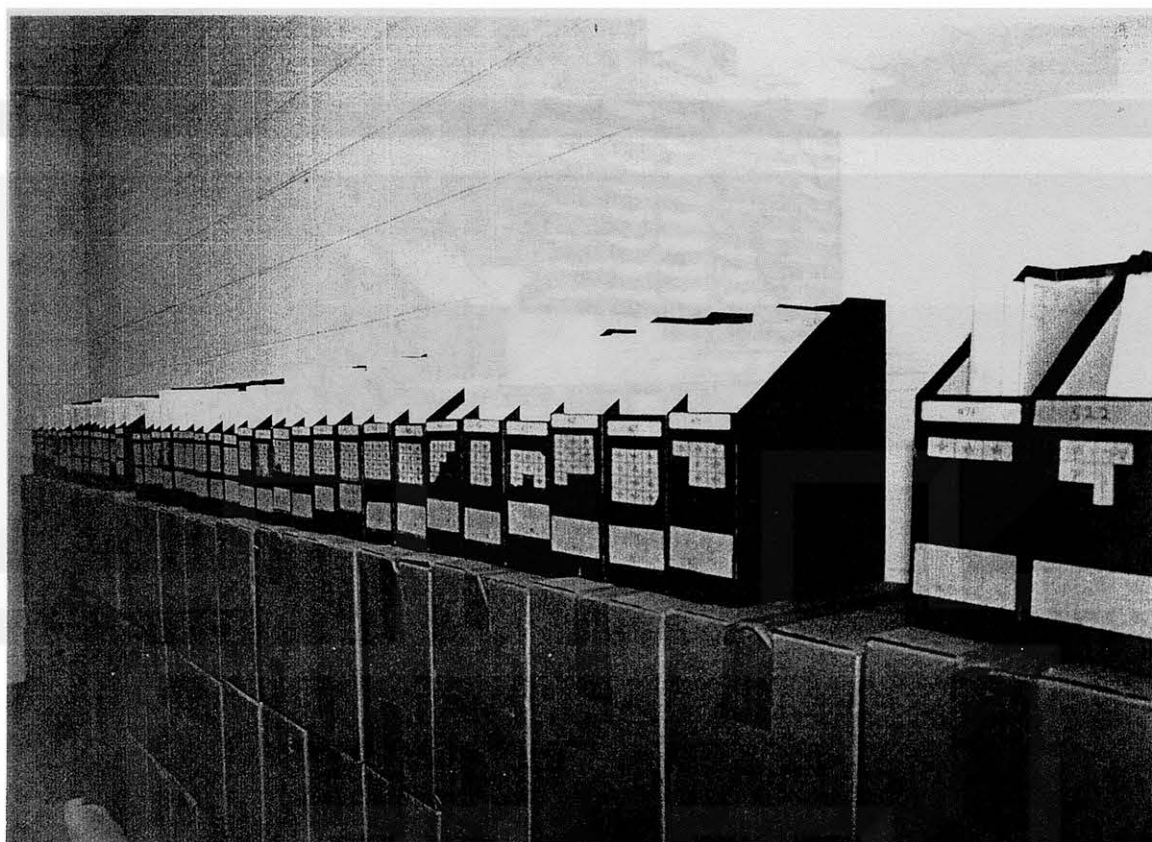




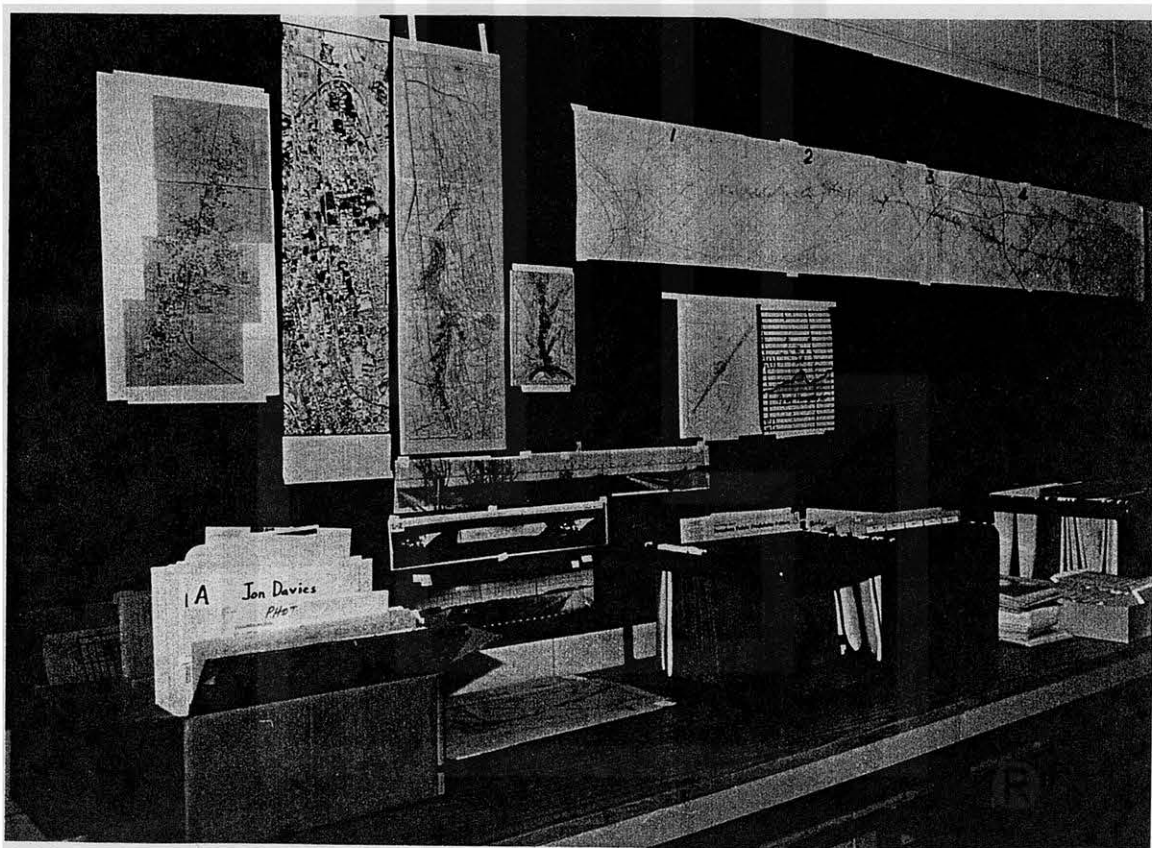
Hallway of the Wind Research Laboratory



Laboratory tornado model being used for teaching purposes (Rm 484)



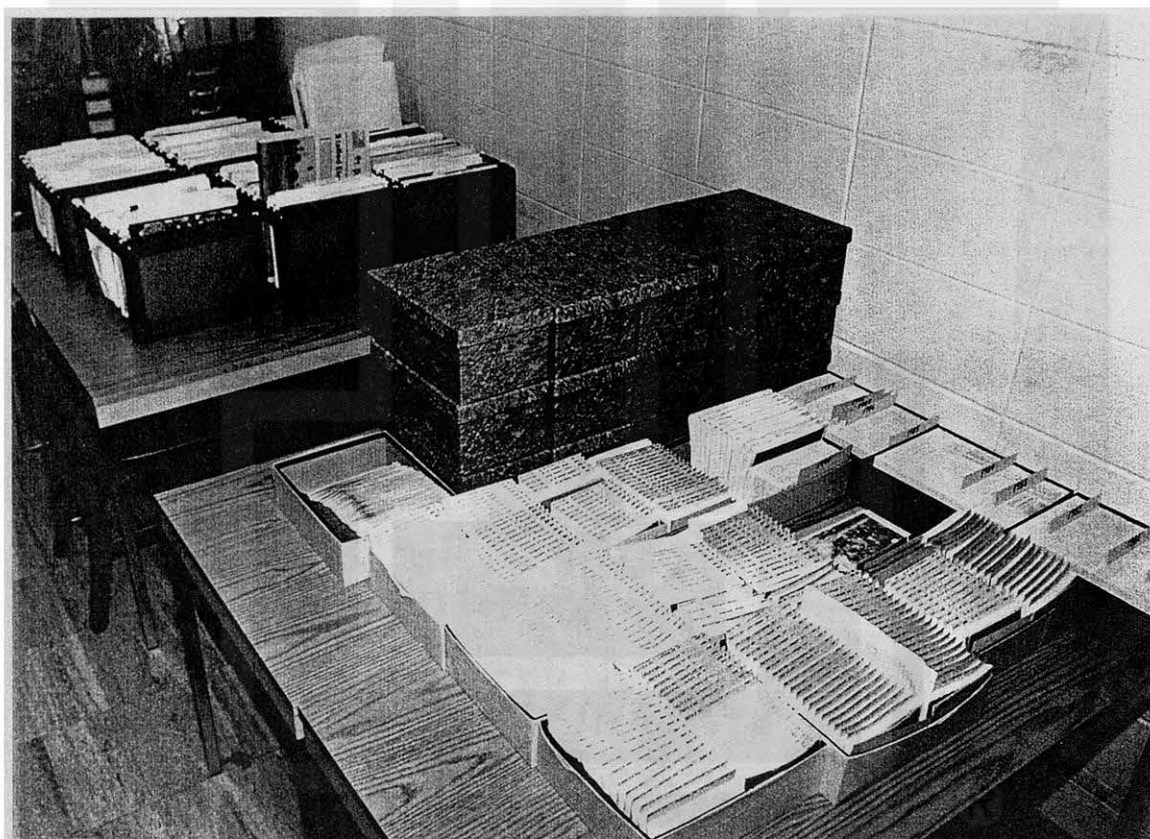
1:250,000 topographic maps covering the entire United States (Rm 484)



Display room of current research results (Rm 471)



Tornado maps from 1916 to 1990. 1:1,000,000 scale (Rm 476)



Library of aerial photographs since 1965 (Rm 476)

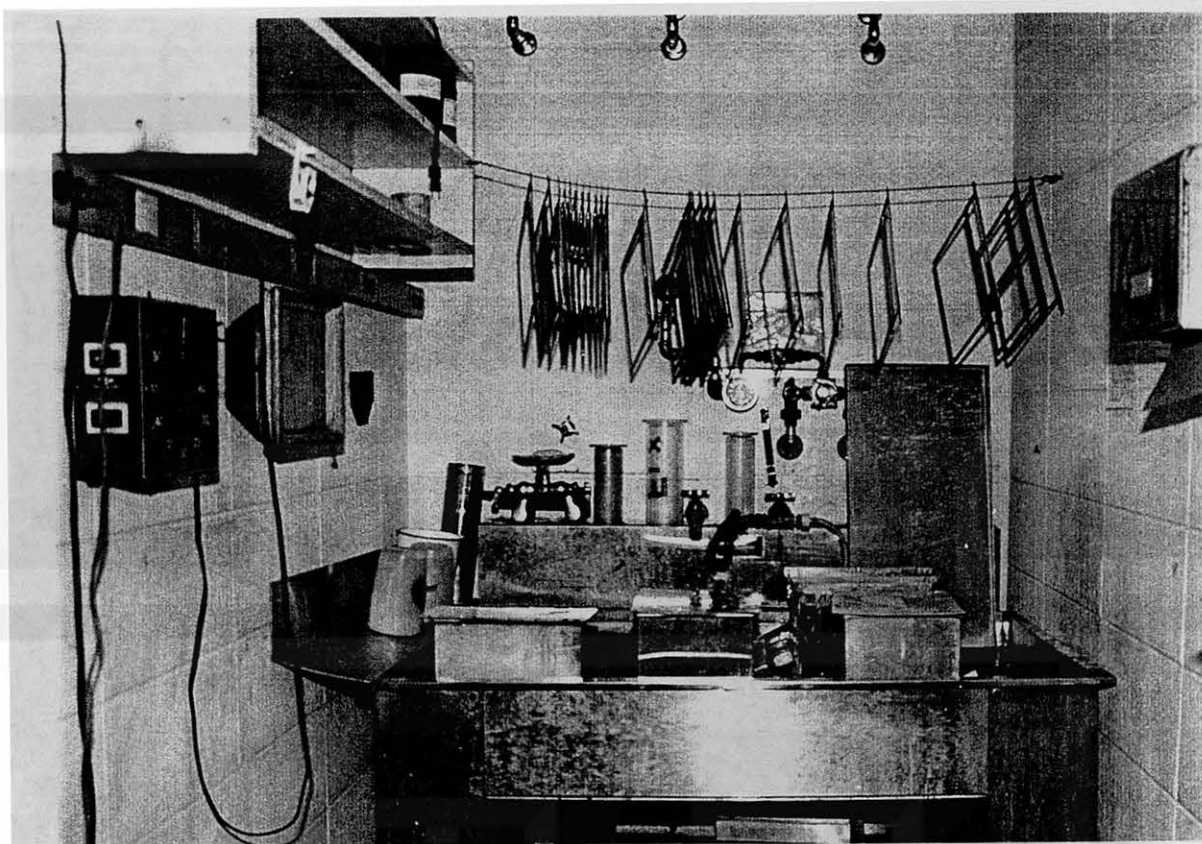
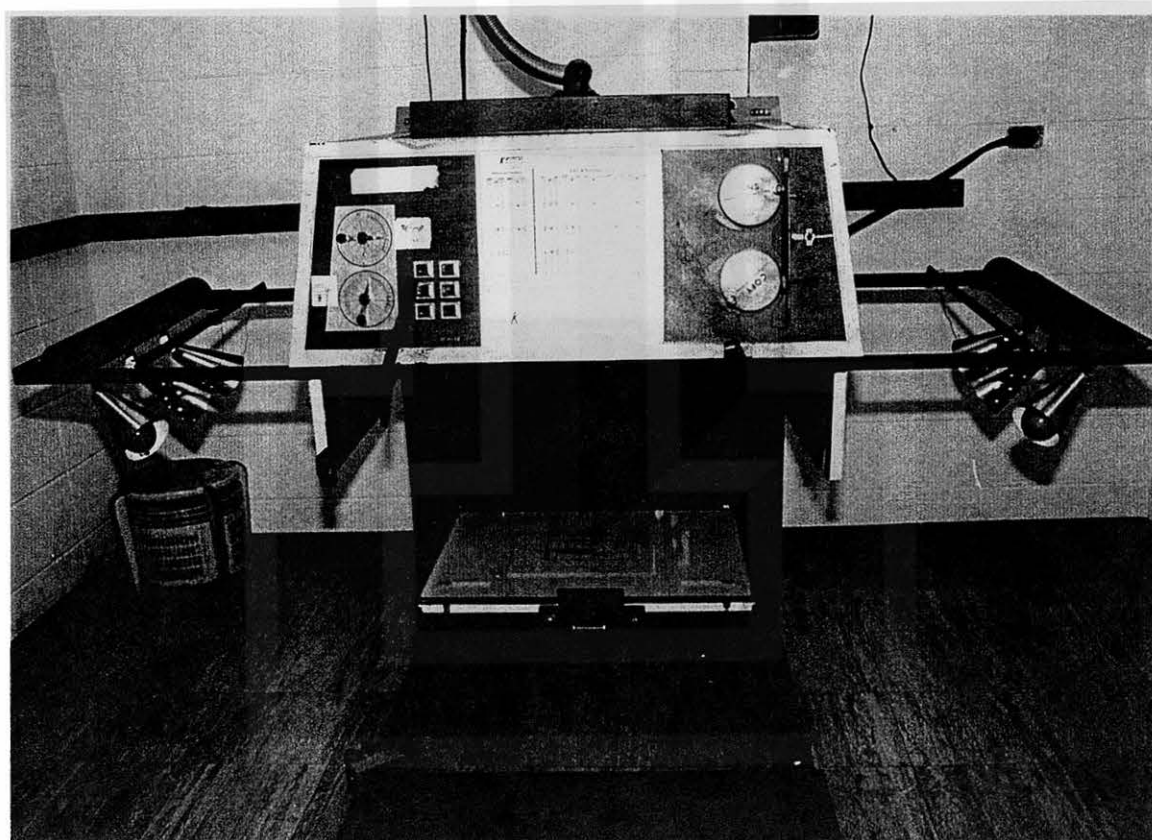
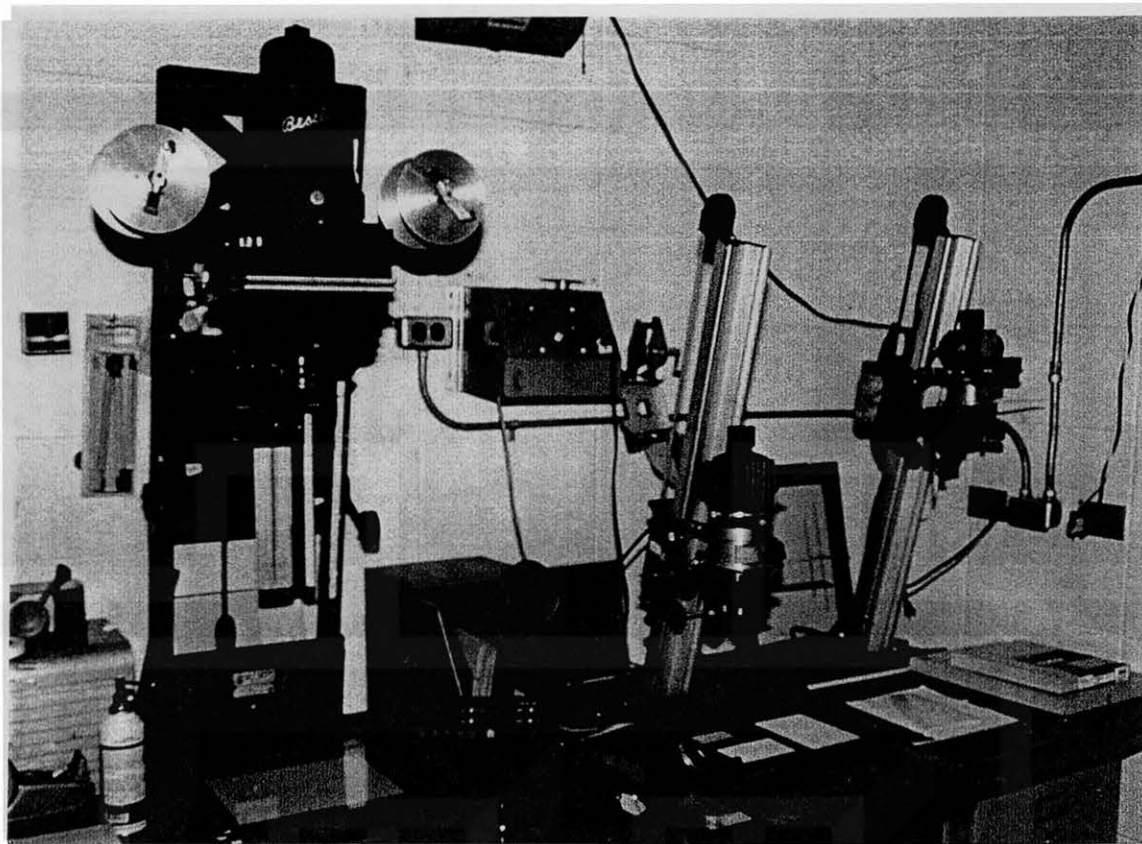


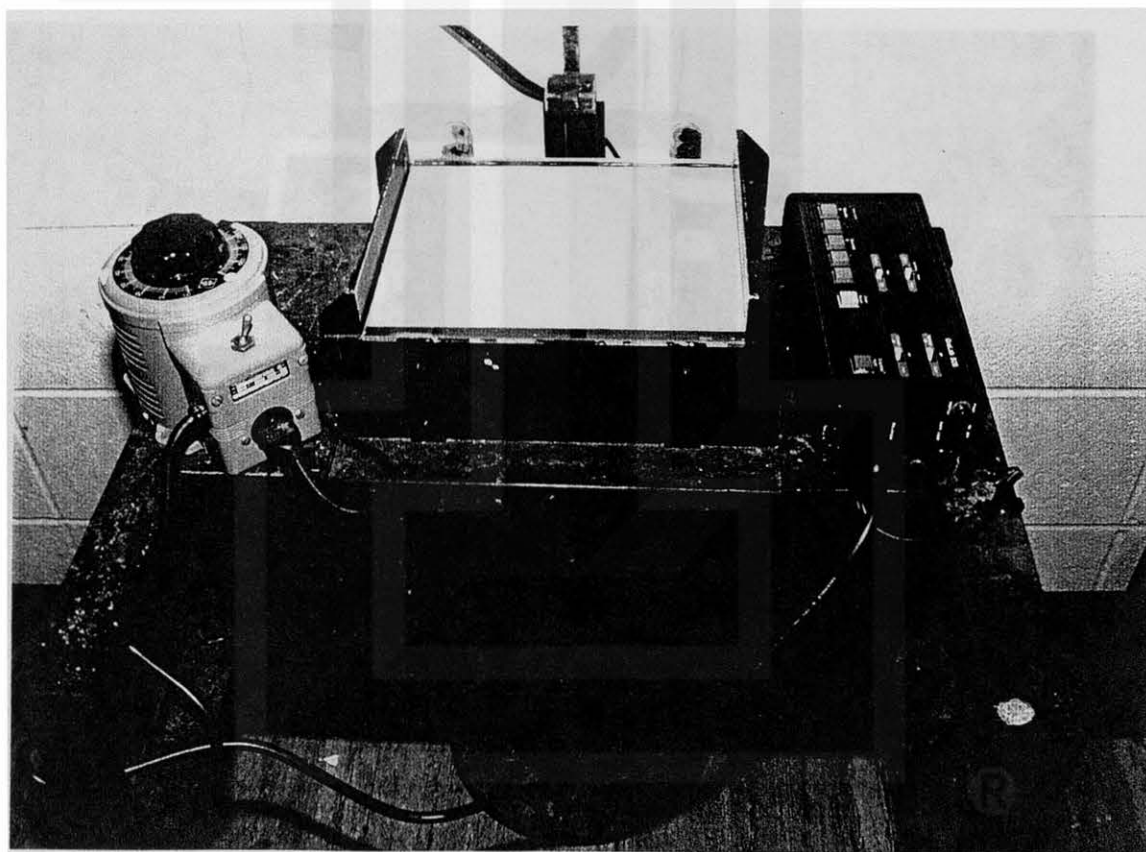
Photo lab for processing B&W negatives (Rm 472)



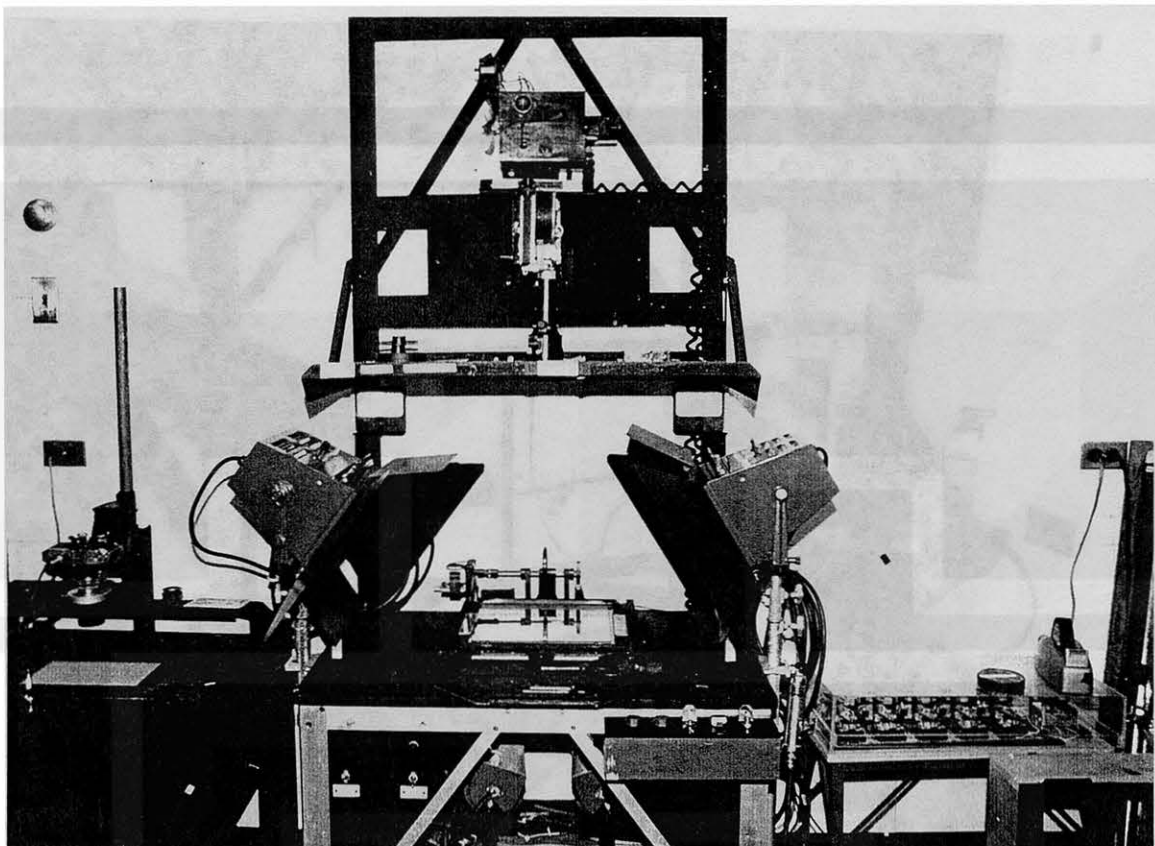
Vertical camera for both front and back lighting (Rm 470)



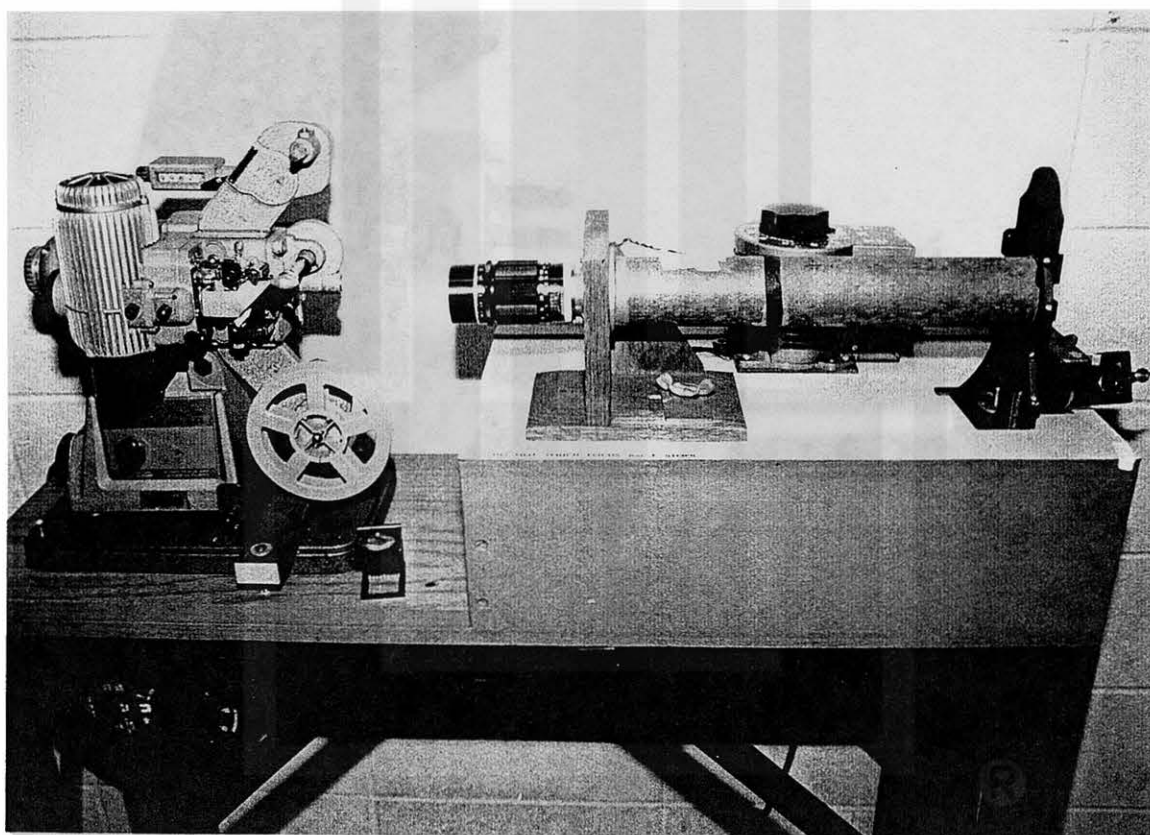
Three enlargers for B&W and color prints (Rm 472)



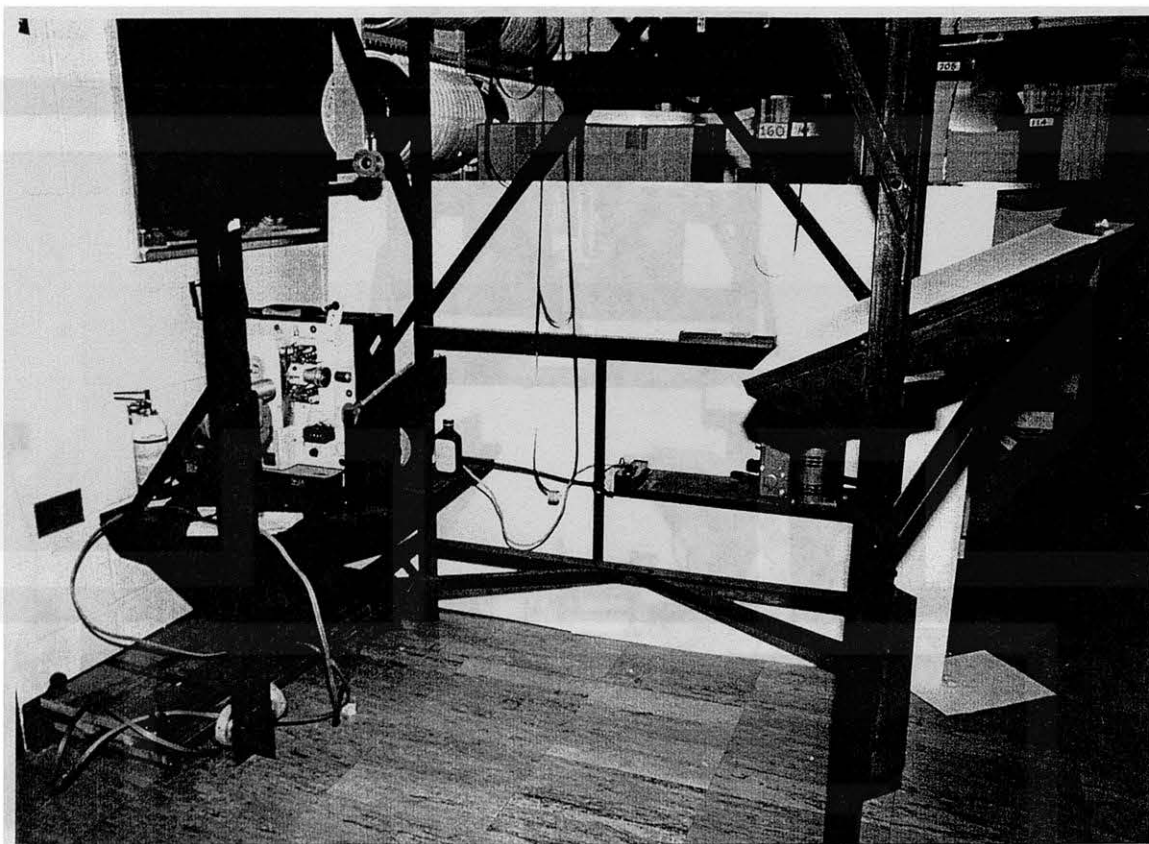
Home-made contact printer (Rm 472)



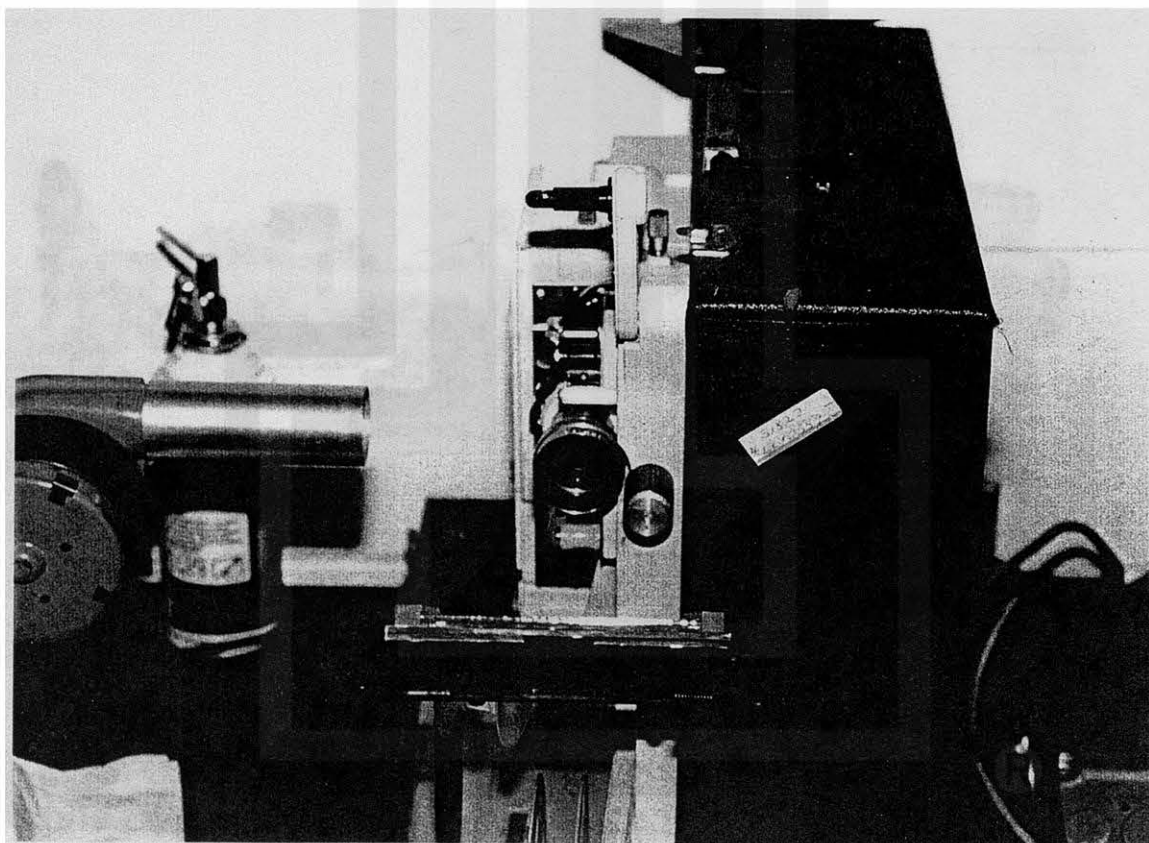
Time-lapse movie machine for animation of satellite photos (Rm 476)



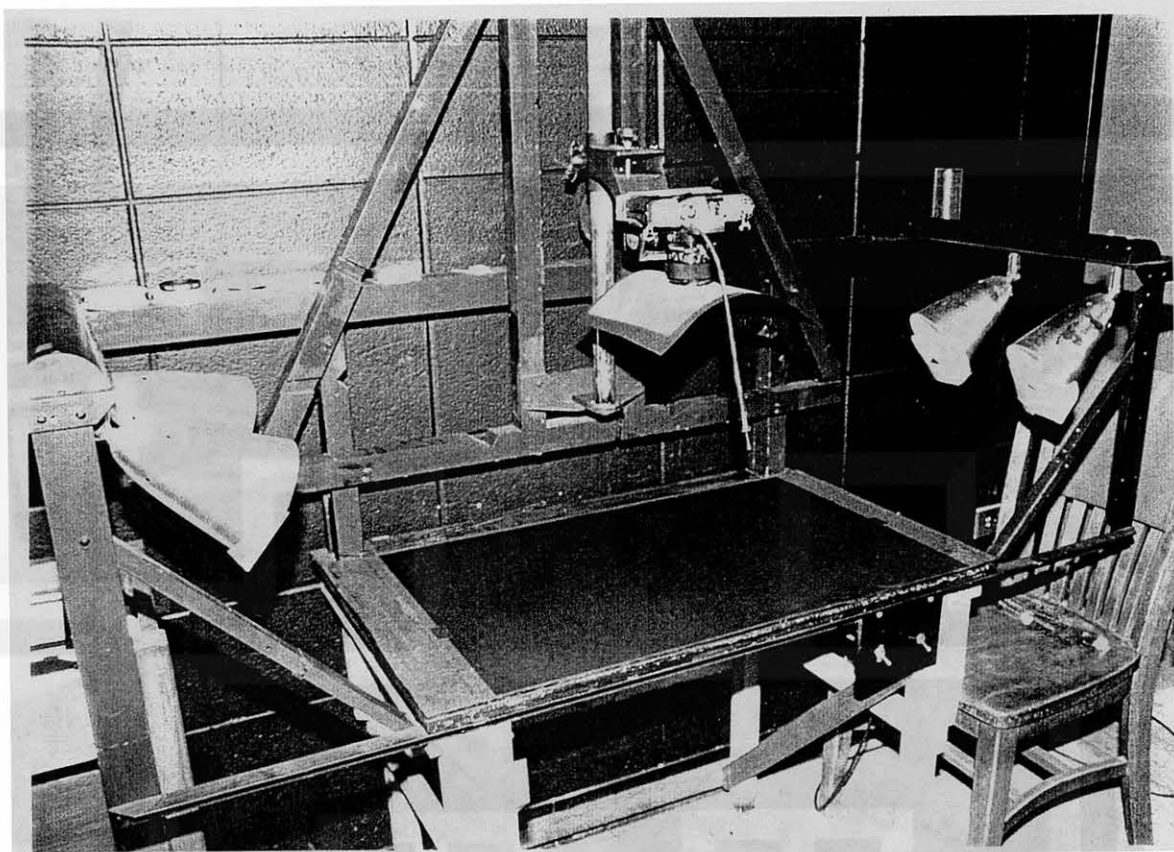
Converter from 16-mm film to 35 mm film (Rm 476)



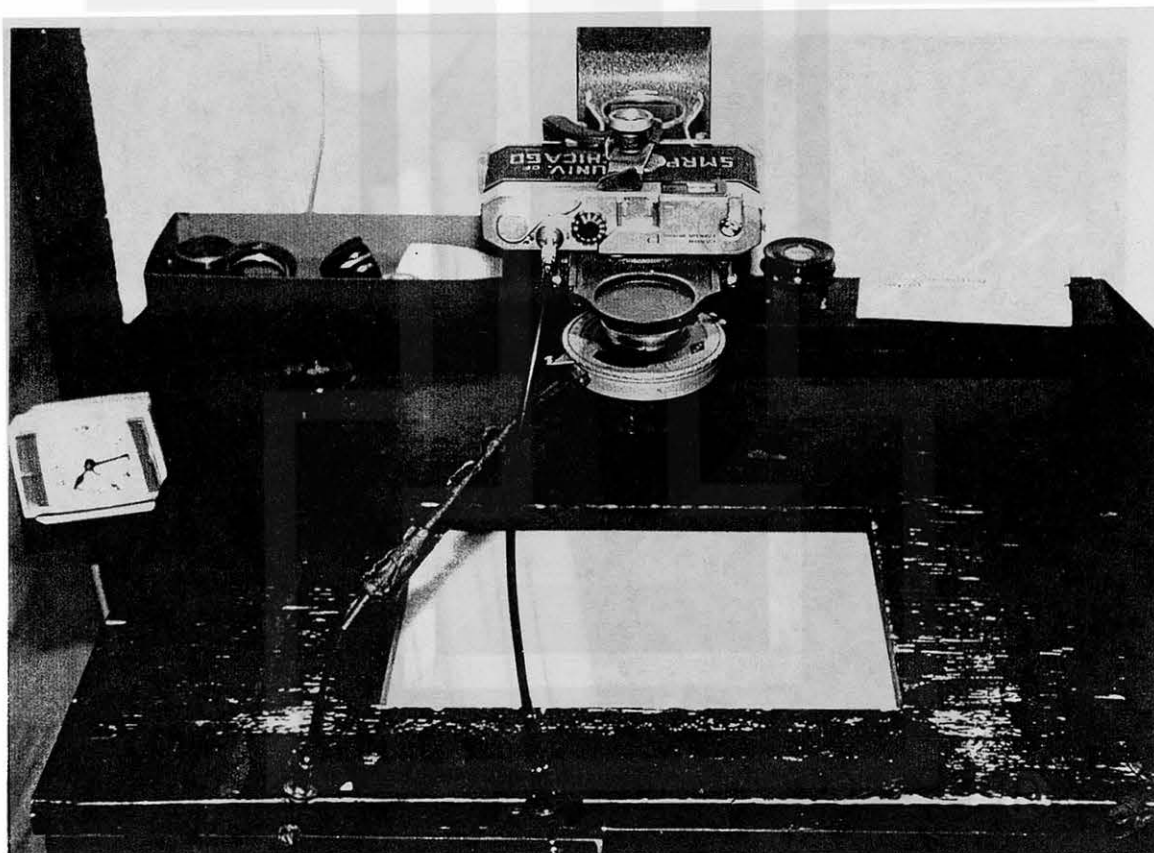
Time-motion analyzer for tornado windspeed computations (Rm 488)



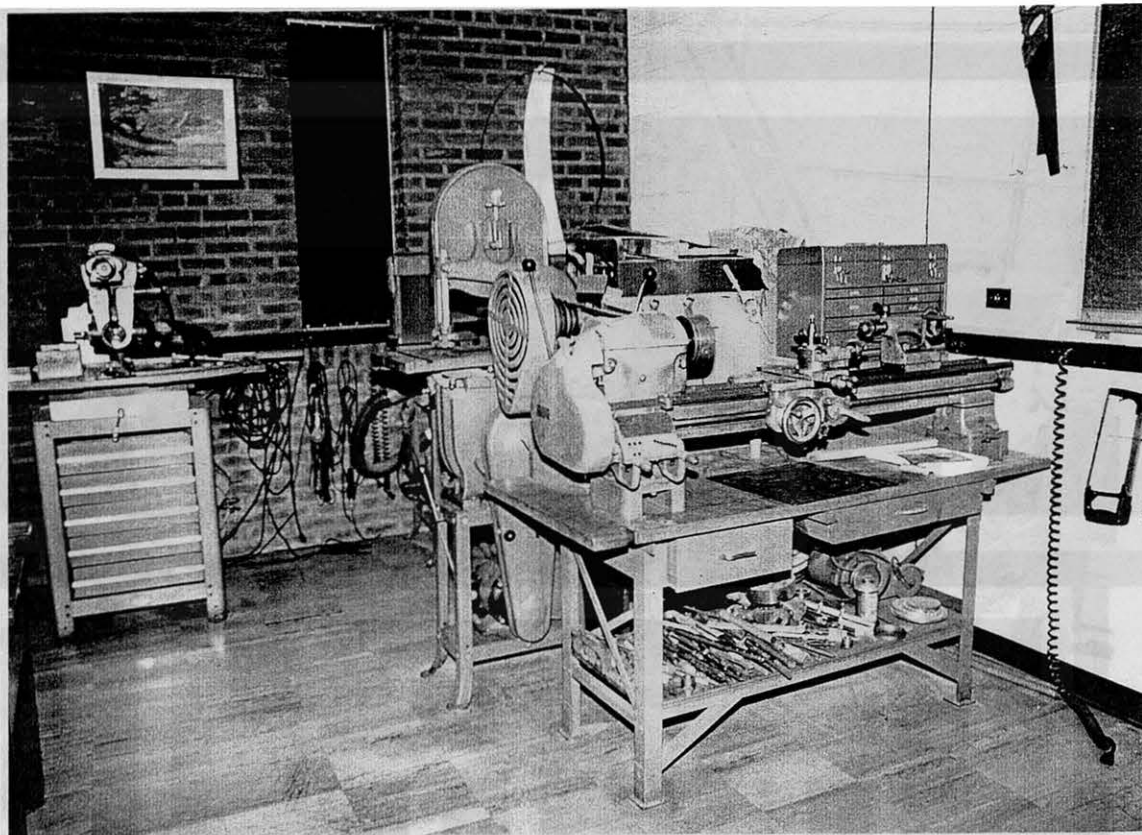
Air-cooled projector (Rm 488)



35-mm camera stand for slides (Rm 476)



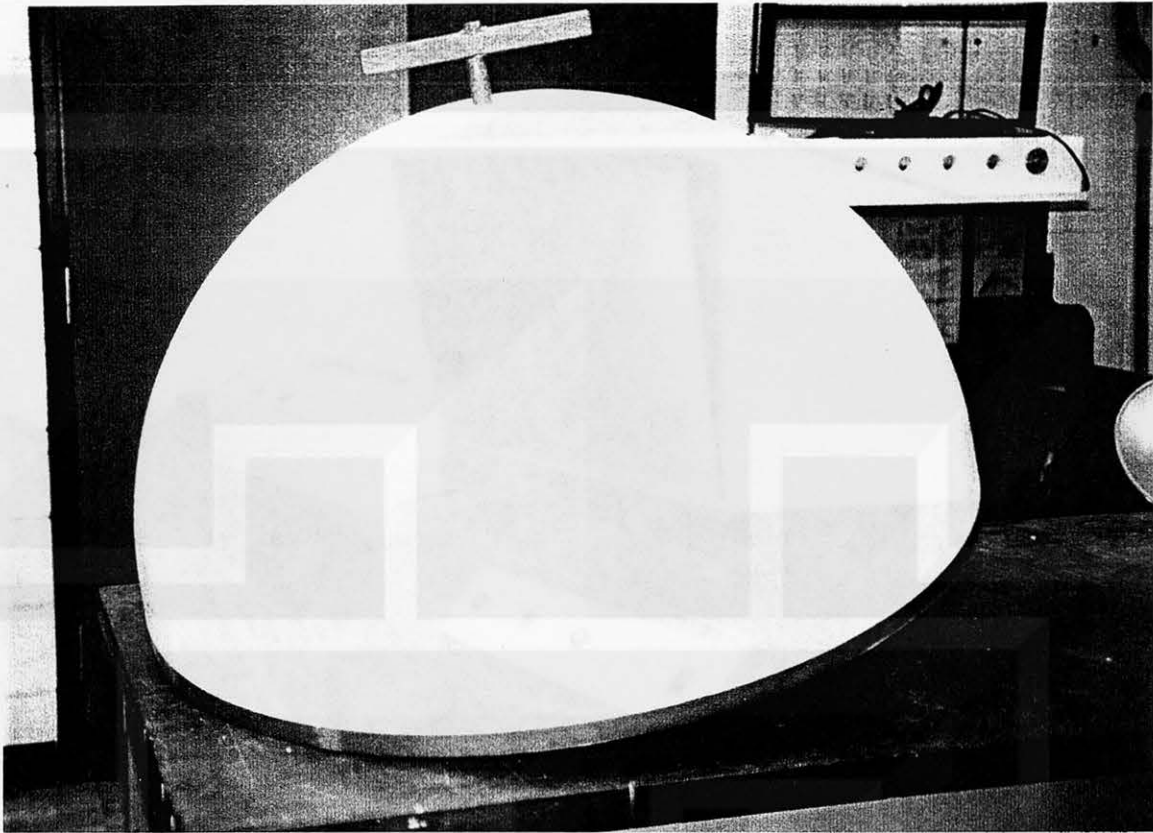
Camera for multiple-exposure color slides (Rm 476)



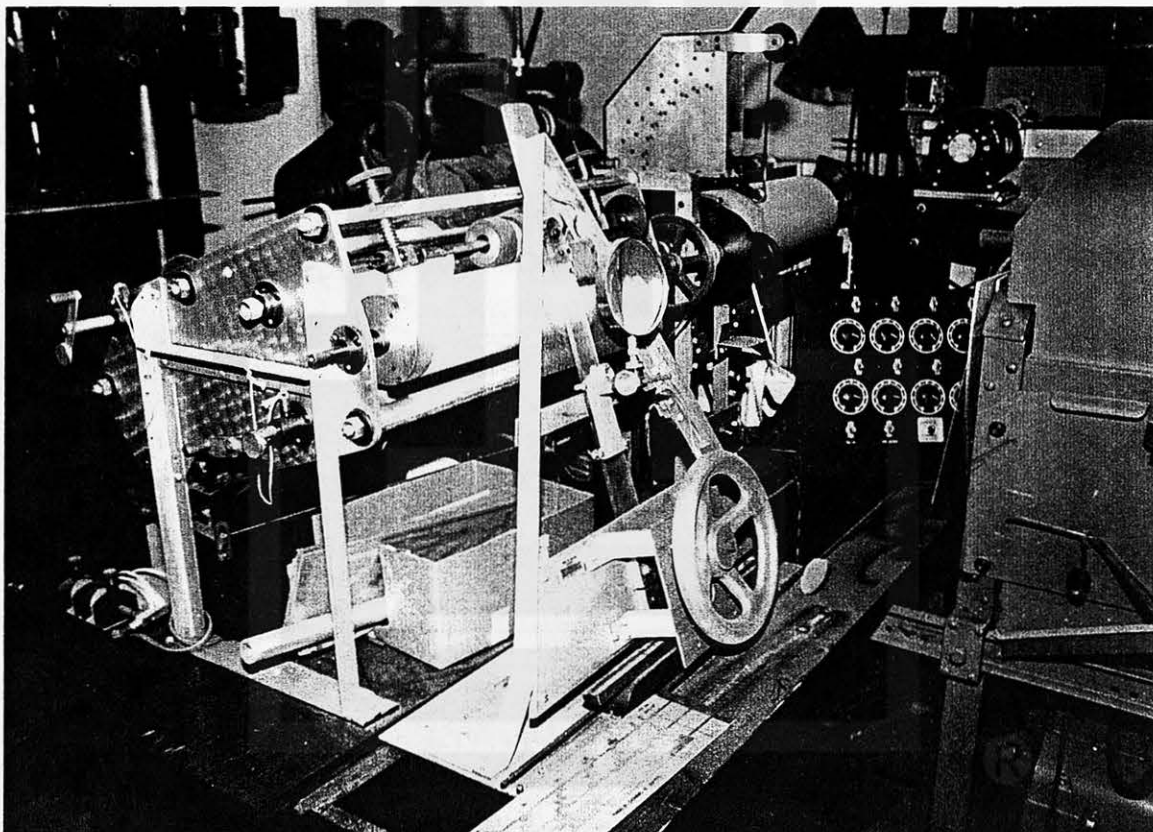
Lathe, band, and circular saws (Rm 405)



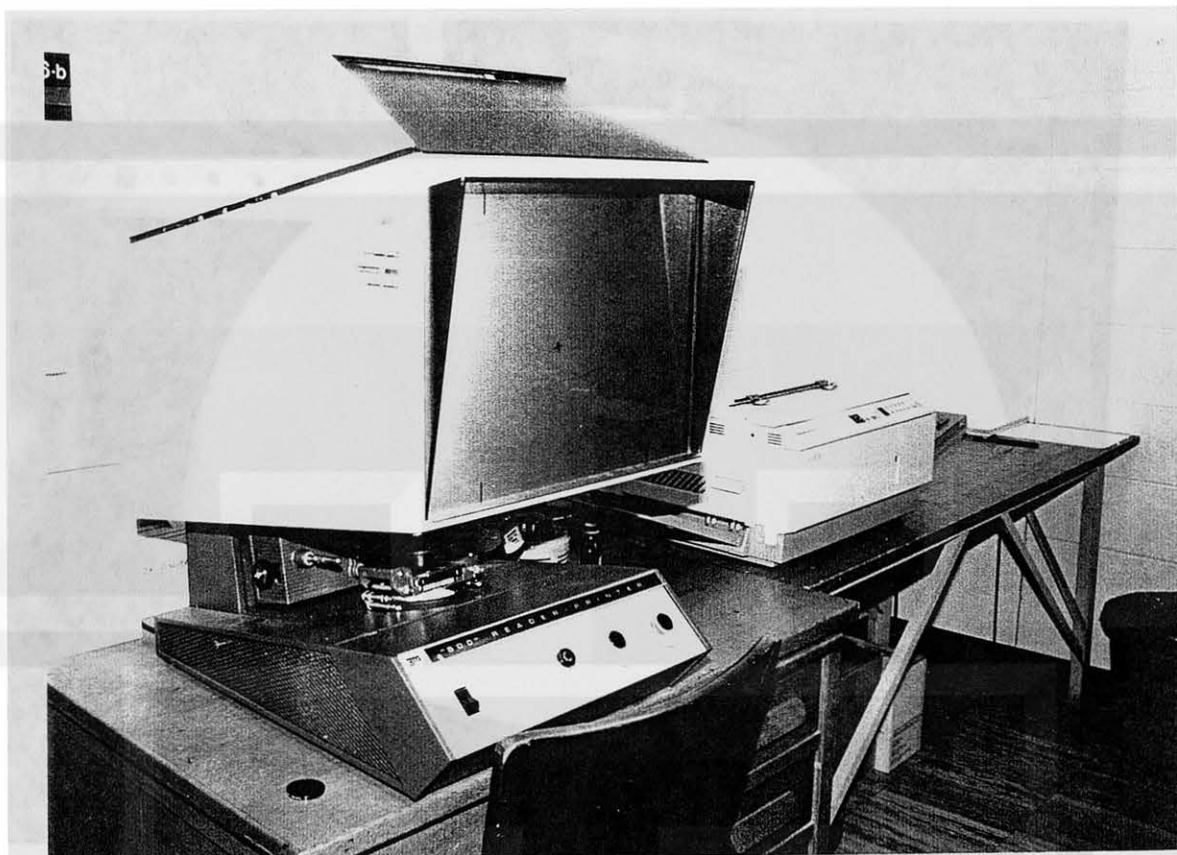
Material storage for machine shop (Rm 406)



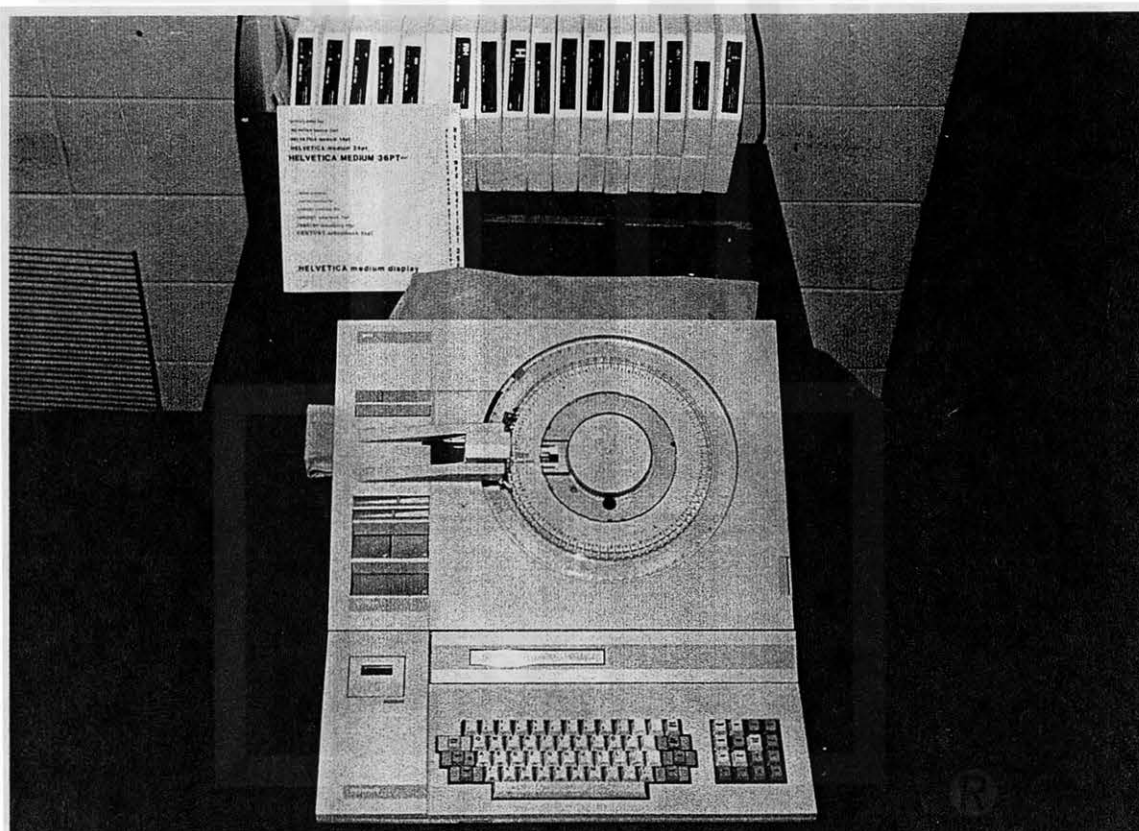
White hemisphere for rectifying satellite photos (Rm 405)



Encoder-printer of satellite radiation data (Rm 405)



Microfilm reader/printer (Rm 476)



Kroy typeset typewriter (Rm 476)