# PROJECT 10073 RECORD CARD

1. DATE	2. LOCATION		12.	CONCLUSIONS
25 March, 1960	Dalton, Massachusetts		000	Was Balloon Probably Balloon Possibly Balloon
3. DATE-TIME GROUP  Local 1030 P.M.  CMT	4. TYPE OF OBSERVATION  X & Ground-Visual  Air-Visual	O Ground-Radar  D Air-Intercept Radar		Was Aircraft Probably Aircraft Possibly Aircraft
5. PHOTOS  Gives physical spec	imen Civilian			Was Astronomical Probably Astronomical Possibly Astronomical
7. LENGTH OF OBSERVATION	8. NUMBER OF OBJECTS	9. COURSE	00	Otherics Insufficient Data for Evaluation
N/A	one	down	0	Unknown
10. BRIEF SUMMARY OF SIGHTING		11. COMMENTS		
A 30 lb. chunk of ice fell The area wassurveyed by an and there was no overhead the ice could have fallen. pattern was a fairly even an area 28' x 28'. The ice and described as porus, or	ATIC investigator object from which The spatter distribution over a was analysed	to the origin cases may ind will lead to	of	the ice. Future te a pattern which conclusion.

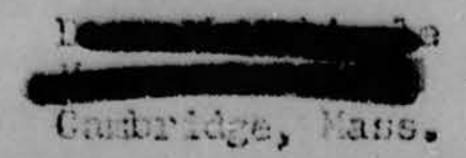
ATIC FORM 329 (REV 26 SEP 52)

OFFICIAL FILE COPY

AFCIN-LE2 /Maj Friend/amc/69216/typed 17 June 60

21 Jun 285

lee Fell, Dalton, Hass.



Dear Dr

1. On 25 March 1960, an "ico fall" case, which occurred in Dalton, Massachusetto, was reported to ATIC. A swarmry of this incident is attached to this correspondence.

- 2. ATIC has come to no conclusion concerning the origin of the ice. However, future cases may indicate a pattern which will lead to a conclusion.
- 3. This report is forwarded upon the suggestion of Dr J. Allen Hynek, who indicated that it may be of value to you in your present work.

Sincerely,

-

MICHOLAS POST

Acting Deputy

Science and Components

2 Atch:

1. C: Rot #WHRC P60-7

2. Ice Fall Summary

COORDINATION:

Total Price Major AFCIN 862 20 June 60

AFCIN-hE2/Maj Friend/amc/69216/typed 17 June 1960

21 JUN 1980

Too Tall, Delton, Mass.

1520 "H" Street, NW Washington 25, D. C.

- 1. Un 25 March 1960, an "ice fall" case which occurred in Dalton, Massachusetts was reported to ATTC. A summary of this incident is attached to this correspondence.
- 2. ATIG has come to no conclusion concerning the origin of the ice; however, future cases may indicate a pattern which will lead to a conclusion.
- 3. This report is forwarded to your agency due to your possible interest in these cases.

FOR THE COMPANDER:

Science and Components

2 Atch:

1. Cy Ppt #WMRC P60-7

2. Ice Tall Summary

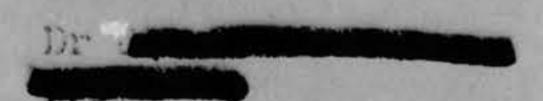
COORD INATION:

Fried Mign AFCINET 20 Jun ...

AFCIh-1.12/Maj Friend/amc/69216/typed 17 June 60

21 JUN 1989

Ico Pall, Dalton, Maso.



Convair astronautics San Diego 12, Calif.

Bear Dre

- 1. On 25 March 1960, the Aerospace Technical Intelligence Center received a report of an "ice fall" in Dalton, Massachusetts. A surmary of this incident is attached to this correspondence.
- 2. As yet ATIC has no opinion concerning the origin of the ice.
- 3. This report is forwarded due to your interest in these cases as possible substantiation of your theory that the green fireball type meteors may be composed of frozen gases.

Sincerely,

MICHOLAS POST

Acting Deputy

Science and Components

2 Atch:

1. Rpt #WWRC P60-7

2. Ice Fall Summary

COORDINATION:

Stat & Misseul Major AFCINIER 20 June 60

This case contains 1, 8"x10" photograph.



Very lyst Topeoca sure Missed lad by a few ments Great wifferens in countrienty

To the second se

# Ice Fall - Dalton, Massachusetts

On 25 March 1960, a 30 pound chunk of ice fell in Dalton, Massachusetts. The area was surveyed by an ATIC investigator, and there were no overhead objects from which the ice could have fallen. The splatter pattern was a fairly even distribution over an area 28' by 28'. The ice was described as rather porous, or like rime ice. A sample was taken from the center of one of the larger pieces in an attempt to preclude contamination from the local area. The sample was transported to ATIC in an air tight container. An analysis of the sample was accomplished by the physics laboratory of the Wright Air Development Division, and a copy of the report is attachment #1 to this document.



OUT OF THE SKY Friday night came a 30-pound chunk of ice which dug a deep hole. in the yard of Mr. and Mrs. Larry Roche of Dalton. Mr. Roche points to some of the shattered pieces he thinks fell from an airplane. Particles of sand were found in the broken pieces. A Cambridge scientist has asked Roches to save melted residue so he can analyze it.



OUT OF THE SKY Friday night came a 30-pound chunk of ice which dug a deep hole.

Out of the Sky Friday night came a 30-pound chunk of ice which dug a deep hole.

In the yard of Mr. and Mrs. Larry Roche of Dalton. Mr. Roche points to some of the shating the yard of Mr. and Mrs. Larry Roche of Dalton. Mr. Roche points to some of the shating the yard of Mr. and Mrs. Larry Roche of Dalton. Mr. Roche points to some of the shating the yard of Mr. and Mrs. Larry Roche of Dalton. Mr. Roche points to some of the shating the yard of Mrs. Larry Roche of Dalton. Mr. Roche points to some of the shating the yard of Mrs. Larry Roche of Dalton. Mr. Roche points to some of the shating the yard of Mrs. Larry Roche of Dalton. Mr. Roche points to some of the shating the yard of Mrs. Larry Roche of Dalton. Mr. Roche points to some of the shating the yard of Mrs. Larry Roche of Dalton. Mr. Roche points to some of the shating the yard of Mrs. Larry Roche of Dalton. Mr. Roche points to some of the shating the yard of Mrs. Larry Roche of Dalton. Mr. Roche points to some of the shating the yard of Mrs. Larry Roche of Dalton. Mr. Roche points to some of the shating the yard of Mrs. Larry Roche of Dalton. Mr. Roche points to some of the shating the yard of Mrs. Larry Roche of Dalton. Mr. Roche points to some of the shating the yard of Mrs. Larry Roche of Dalton. Mr. Roche points to some of the shating the yard of Mrs. Larry Roche of Dalton. Mr. Roche points to some of the shating the yard of Mrs. Larry Roche of Dalton. Mr. Roche points to some of the shating the yard of Mrs. Larry Roche of Dalton. Mr. Roche points to some of the shating the yard of Mrs. Larry Roche of Dalton. Mr. Roche points to some of the yard of Mrs. Larry Roche of Dalton. Mr. Roche points to some of the yard of Mrs. Larry Roche of Dalton. Mr. Roche points to some of the yard of Mrs. Larry Roche of Dalton. Mr. Roche points to some of the yard of Mrs. Larry Roche of Dalton. Mr. Roche points to some of the yard of Mrs. Larry Roche points to some of the yard of Mrs. Larry

MEMO TO: Major Friend

SUBJECT: Report of Dalton, Mass. Ice Fall, 25 March 1960

- Dalton, Mass. reported the fall of many pounds of ice from the sky. This was reported on the radio, and I called Mr and asked him to put a sample of the ice in the freezer. Later in the week Mr, a friend of mine, volunteered to make the trip from Boston to Dalton, Mass. (300 miles) round trip, to pick up the ice. He cut a chunk out of the center of the ice sample and the melted sample is herewith submitted.
- 2. The circumstances of the fall were these: Shortly before 10:30 the Roche's 15 year old son returned from an errand making copious tracks in the snow; within a few minutes there was a very loud noise outside that "shook the house". Everyone dashed outside thinking that there had been a bad automobile accident someplace. All that was found was the fallen ice which landed very close to the tracks in the snow made by the boy just a few minutes earlier. This made a hole in the ground about one inch deep. The landing spot of the ice is pictured in inclosure, and also close-ups of the ice. It was determined that the ice could not have fallen from the roof or the trees. The landing pattern of the ice is shown in inclosed diagram.
- 3. The ice itself resembled tapioca snow and was considerably less dense than ordinary ice for it was quite coarse and a chunk the size of a man's head probably weighed not much more than a pound. By no consideration could the frozen snow-ice be thought the same as the surrounding snow and ice.
- 4. Exact weather conditions have not yet been determined, but witnesses stated that they could see stars. They also stated that their house does not lie under any scheduled airlines.
- 5. A sample of the water has been given to Dr at Smithsonian for tritium analysis. It is suggested the present sample be subjected to analysis at Wright Field.

Dr J. Allen Hynek

NOTE: Water sample should be analyzed for type of water (coastal, rain, etc), mineral content, and organic content, and such other analysis as is deemed appropriate - also spectrographic analysis of residue in water.

40-6 8 APR 1960 (See WADOR 83-16) 1. TO (Supporting Orgn) 8 APPOIL 60 WIRCPA SYSTEM NO. INITIATING ORGH S. DATE COMPLETION REQ 8. PRIORITY 195412 PROJECT NO. SUPPORTING ORGA 5 77101 7. SECURITY CLASSIFICATION 8. PRECEDENCE RATING OF WORK REQUESTED TASK NO. 8. A/C TYPE, MODEL AND SERIAL NO. TECH GROUPING OTHER TITLE WADE FORM 50 HAS WHAS NOT BEEN INITIATED. Water sample should be analyzed for type of water (coastal, rain, etc), mineral content, 10. DESCRIPTION OF WORK Co givena pectrog CONTINUED ON REVERSE SIDE FOR USE OF RESPONSIBLE ORGANIZATION 13. CHIEF (Responsible Orgn of Rep) 12. SECTION CHIEF 11. INITIATOR ORGN CODE AFCINEXYEL ORGN CODE EXT FOR USE OF SUPPORTING ORGANIZATION 15. CHIEF (Supporting Orgn or Rep) 18. PROJECT ENGINEER OR PLANNER 14 ESTIMATED COMPLETION Solomon J. Brokeshaulder Capt USAF DATE CLOSING ACTION 21. CHIEF (Responsible Organ or Rop) 20. CHIEF (Supporting Orgn or Rep) XI COMPLETED CANCELLED

# ROUTING AND COORDINATION SHEET

FILE CLAS	S:	
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ROL	TING/COORDINATION

# WRIGHT AIR DEVELOPMENT CENTER WRIGHT-PATTERSON AIR FORCE BASE, OHIO

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MATERIALS CENTRAL

PHYSICS

LABORATORY

EVALUATION REPORT

ANALYSIS OF JOB WATER

REPORT NR: WHITE P60-7

DATE: 4 May 1960

PROJECT NR: 577101

TYPE EVALUATION:

MANUFACTURER:

SPEC NR:

SUBMITTED BY: AFCIN-412

ITEM SERIAL NR:

James O. Bolien

#### I. PURPOSE

To analyze a sample of thawed ice water and determine its composition.

## II. FACTUAL DATA

- 1. The sample was received and assigned Physics Laboratory Suborder No. P-6.
- 2. The sample was analyzed by emission spectroscopy and m-ray diffraction analysis.
- 3. Emission spectrographic analysis indicated the water to have the following composition:

Filtered thawed ice water -

Minor - Magnesium

Traces - Silicon, manganese, aluminum, iron, nickel, copper, sodium, zinc, chromium and calcium

Large and small particles (residue) -

Principal - Calcium

Majors - Silicon, magnesium, aluminum and iron

Minors - Manganese, copper, sodium, zinc, titanium and chromium

Traces - Tin, lead and nickel

4. X-ray diffraction analysis indicated that the large and small particles are the same compound. The compound was identified as silicon dioxide (SiO1), a natural mineral.

## III. CONCLUSIONS

There was not enough of the thawed ice water to conduct any other analysis.

### IV. PECOMMENDATIONS

None, data merely submitted.

PREPARED BY:

WADE H. JONES, WWROPA-2

#### PUBLICATION REVIEW

This report has been reviewed and is approved.

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Adomin A. Brokeshaulder SOLOMON F. BROKESHOULDER, Capt, USAF Chief, Organic Analysis Section Physics Laboratory Materials Central