Data on Destructive Avalanches in Japan Reported to Unesco

By

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and

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はじめに

ユネスコは、自然災害についての資料を収集し、その年報（Annual summary of information on natural disasters）を1966年以降現在まで発行している。1970年までに取り上げられた項目は、地震（earthquakes）、津波（tsunamis）、高潮（storm surges）、火山（volcanic eruptions）であり、1971年からはこれらに地すべり（landslides）、災害だれ（destructive avalanches）、異常な氷河現象（unusual glacier phenomena）の項目が加えられることになった。

国立防災科学技術センター・雪害実験研究所が、日本の連絡機関になった経過を簡単に記す。ユネスコは、1970年5月4日から6日にかけて、パリで国際雪氷委員会（International Commission of Snow and Ice，略称 ICSI）の下部組織である“ただれ作業部会”を開催し（日本からは故東田幹夫博士、当時は日本国有鉄道所属、雪害実験研究所長が出席）、ただれ災害の起こりそうな国々に対して、外交ルートを通じて、各国のただれに関する国内連絡機関（員）の指名を提案し、日本においては、国際水文学十年計画（IHD）国内委員会で検討の結果、雪害実験研究所がこれに当たることになったのである。
この報告書は、日本で起きた災害なだれの1970年から1974年分までのユネスコへ送付した回覧書を集録したものである。
(1) ユネスコから求められた質問状について
災害なだれについての質問状には2種類あり、1つは[A]欄々のなだれについてのやや詳細なものと、他の1つ[B]はそれらをまとめたものである。(A)，(B)は著者が両に分けて行ったもので、付属資料の最初のカバーに、質問状(A)，質問状(B)を表示したもの。なお、質問状(B)はクリーム色の紙を用いてある。
(2) 日本からの回答書
参考文献(3)の手紙での要請により、日本からは、1970年から1971年の冬季間に発生した災害なだれを1971年7月9日付でユネスコへ報告し、現在まで冬季間ごとに発生した災害なだれを報告している。
(3) 資料収集の方法
(4) ユネスコへの報告の概要
1970年から1974年までの報告の一覧表は、表1のとおりであり、その詳細（英訳してユネスコへ送付した回答書の全て）は付属資料としてこの報告書の末尾にのせている。なお、ユネスコからの年報には、我が国から参考として添付した図表は印刷されていない。
災害を及ぼした“異常な氷河現象”（unusual glacier phenomena）についても質問状（付表2）が求められているが、我が国ではその例はいまだ見られていない。
ユネスコへの回答書作成にあたり、各県の関係者の皆様から多大の御協力をいただいたことを記し、ここに感謝の意を表する次第である。

参考文献
2) Unesco のDepartment of Environmental Sciences からの伊藤善二氏 (Secretary, Committee for the IHD, General Secretary for the Japanese National Commission for Unesco) 処への手紙、1971年4月26

- 2 -
ユネスコへのわが国からの災害を含め報告について——中村・山田

日付，reference SCE53/35。

3) UNESCOのDepartment of Environmental Sciencesから，国立防災科学技術センター雪害実験研究所長宛への手紙，1971年6月1日付，reference SCE 53/35。

4) "雪崩に関する国内連絡員" 1971，雪氷，33巻，3号，93頁。

(1975年9月10日 原稿受理)
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<th>経度(東経)</th>
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| 1971/1972年冬 | | | | | | | | | | |
| 1 1.16 | 長野県茅野市北山町, 横岳 | 35°58′ | 138°22′ | T | 2 | 3 | 0 | - |
| 2 2.10  | 山梨県甲府市清野町, 鳳凰山 | 35°42′ | 138°18′ | - | 0 | 0 | 畜物1戸 | 無人の小屋 | - |
| 3 2.11  | 鳥取県西伯郡大山町, 大山 (北野県西沢川根) | 35°23′ | 133°33′ | T | 3 | 3 | 0 | - |
| 4 2.16  | 山梨県甲府市木沢村, 富士山 | 35°22′ | 138°42′ | C | 0 | 0 | 道路・森林 | 畜物 | - |
| 5 3.20  | 静岡県御殿場市, 富士山 (南東側面2.5合目) | 35°18′ | 138°56′ | T | 2 | 4 | 0 | 車3台 | - |
| 6 4.10  | 栃木県那須郡那須町湯本, 朝日岳 | 37°08′ | 139°58′ | T | 2 | 0 | 0 | - | - |

| 1972/1973年冬 | | | | | | | | | | |
| 1 1.21  | 北海道上川郡東川町, 大雪山崩ノ沢 | 43°09′ | 143°31′ | T | 5 | 0 | 0 | - | - |
| 2 1.1-1 | 長野県南安曇郡安曇村 | 36°13′ | 137°37′ | T | 1 | 0 | 0 | - | - |
| 3 1.1-2 | 長野県南安曇郡, 北高崎沢と横尾谷出口 | 36°18′ | 137°40′ | T | 4 | 0 | 0 | - | - |
| 4 1.29  | 岐阜県可児郡水上市町字合, 谷川岳ノ倉沢 | 35°51′ | 138°57′ | T | 2 | 0 | 0 | - | - |
| 5 5.17  | 福島県南会津郡只見町, 鬼面山十里越 | 37°18′ | 139°13′ | W | 1 | 1 | 0 | - | - |

※ T：旅行者，W：作業中の人，R：住人，C：交通・通信障害
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* T：旅行者，W：作業中の人，R：住人，C：交通・通信障害
付表1 各県へ照会した災害なだれ調査票

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県、道、府 1975年冬期のなだれの一連番号

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なだれ事項

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発生要因参考事項（不明のものは記入しないで結構です）

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死傷者と損害

| 死者の数 人、行方不明者の数 人、負傷者の数 人、無傷で救出された者の数 人 |
| --- | --- | --- | --- |

| 建物への被害 | 全壊 棟、半壊 棟、埋没 棟、その他 |
| --- | --- | --- | --- |
| その他の被害 | 棟、通信施設等 |

備考（救助作業、過去になだれの発生があったか等）

写真、スケッチ等があれば添付していただきたい。
DATE OF OCCURRENCE: 19
TIME (if known):
LOCATION: (Country, region, etc.; attach a map or sketch showing location; give latitude and longitude)
DESCRIPTION: Of phenomenon (or series of phenomena) with information on magnitude (estimation of volume of ice and/or water involved, length and width of affected area); attach photographs if possible.
CAUSES: Morphological situation:
Weather conditions (if relevant):
Triggering mechanism (if known):
EFFECTS: (Casualties, damage)
REMARKS:
NOTES:
1. Usual mountaineering accidents (breakage into crevasse, collapse of seracs or ice margins) should not be reported on this form.
2. This form should be completed in duplicate for each glacier event and sent to the following address:
The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
付属資料

1970年12月から1974年4月までに発生した災害なだれのわが国からユネスコへ報告した回答書（A, B）

（最初の各一枚に質問状（A）、質問状（B）の表示をした。なお、質問状（B）はクリーム色の紙を使ってある。）
**UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION**

**Department of Environmental Sciences**

**ANNUAL REPORT ON DESTRUCTIVE AVALANCHES**

**COUNTRY: JAPAN**

**Winter 1971/72**

**Name and address of reporter:** INSTITUTE OF SNOW AND ICE STUDIES, NACDF, SUYOSHI-MACHI, NAGAOKA-SHI, NIGATA-KEN

<table>
<thead>
<tr>
<th>Serial number</th>
<th>Date</th>
<th>Location</th>
<th>Category*</th>
<th>Number of deaths</th>
<th>Number of injured</th>
<th>Damage</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dec.8</td>
<td>37° 05'N, 138°37'E</td>
<td>R</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Dec.8</td>
<td>37° 19'N, 138°54'E</td>
<td>R</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Dec.12</td>
<td>35° 50'N, 136°40'E</td>
<td>T</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Dec.20</td>
<td>37° 07'N, 138°37'E</td>
<td>T</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>Jan.1</td>
<td>36° 58'N, 138°57'E</td>
<td>T</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
</tbody>
</table>

* For accident to tourists, mark T; to people at work, mark W; to residents, mark R; to communications (roads, railways), mark C.

**Note:** This form should be completed in duplicate at the end of each winter season; and sent, together with the reports on individual avalanches, to the following address:

The Director
Department of Environmental Sciences
Unesco
Place de Fontency
Paris 7e (FRANCE)
**Report on Destructive Avalanche**

**COUNTRY:** JAPAN  
**Serial No.:** 1  
**Winter:** 1970/1971

**Name and address of reporter:** INSTITUTE OF SNOW AND ICE STUDIES, NATIONAL RESEARCH CENTER FOR DISASTER PREVENTION, SUYOSHI-MACHI, NAGAOKASHI, NIIGATA-KEN

**LOCATION:** (Name of district, nearest town or village, mountain area, avalanche path)  
9509 0Aza-URATA, MATSUNOYAMA-CHO, HIGASHI-KUBIKI-GUN, NIIGATA-KEN

**Latitude:** 37°05' N  
**Longitude:** 138°37' E  
**Altitude:** 400m

**DATE:** Dec., 8 .................................................................. 1970  
**Time:** 11 h 45 m .................................................................. 02h45m  
**(GMT)**

**DATA ON AVALANCHE:**

<table>
<thead>
<tr>
<th>Type (International classification)</th>
<th>Orientation:</th>
<th>NORTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Starting zone: Altitude: 400m</td>
<td>Width:</td>
<td>Depth of fracture: 1 m</td>
</tr>
<tr>
<td>Avalanche path: Length: 15 m Width: 10 m</td>
<td>Average slope:</td>
<td></td>
</tr>
<tr>
<td>Deposit: Maximum depth:</td>
<td>Volume:</td>
<td></td>
</tr>
<tr>
<td>Causes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Snow structure: NEW SNOW DEPTH: 66cm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weather (snowfall, wind, temperature): SNOWFALL, NW 1 m/s, -0.6°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Triggering mechanism (if known):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CASUALTIES AND DAMAGE:**

<table>
<thead>
<tr>
<th>Number of persons killed: 1</th>
<th>injured: 0</th>
<th>rescued unharmed: 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Damage to buildings (type, number, degree of destruction): 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other damage (forests, communications, etc.): 0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**REMARKS** (rescue work, former history of avalanches, etc.)

Dug immediately after the accident and tried artificial respiration, but not resuscitated.

---

*Please use metric system

**Note:** This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,  
Department of Environmental Sciences,  
Unesco,  
Place de Fontenoy,  
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: JAPAN

Winter 1970/1971
Serial No.: 2

Location: (Name of district, nearest town or village, mountain area, avalanche path)
YAMAGISHI-MURA, KOSEI-GUN, NIIGATA-KEN

Latitude: 17°10' N
Longitude: 138°6' E
Altitude: 100 m

Date: Dec. 19, 1970
Time: 13h 40m = 4h 40m (GMT)

Data on Avalanche:
Type (International classification): A2, B2, C2, D1, E3, F0
Orientation: SOUTH

Dimensions:
Starting zone: Altitude: 140 m
Width: 70 m
Depth of fracture: 10 m

Avalanche path: Length: 70 m
Width: 10 m
Average slope: 10°

Deposit: Maximum depth: 140 m

Causes:
Snow structure: SNOW DEPTH: 130 cm

Weather (snowfall, wind, temperature): SHOWPALL, WNW 1.5m/s, -1.0°C

Triggering mechanism (if known): 

Casualties and Damage:
Number of persons killed: 2
Injured: 0
Rescued unharmed: 0

Damage to buildings (type, number, degree of destruction): 0

Other damage (forests, communications, etc.): 0

Remarks (rescue work, former history of avalanches, etc.):

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
**Report on Destructive Avalanche**

**Country:** JAPAN  
Winter 1970-1971  
Serial No.: 3

**Name and address of reporter:**

**Location:** (Name of district, nearest town or village, mountain area, avalanche path)  
YUNOKAMI, OHO-SHI, FUKUI-KEN

Latitude: 35° 50' 30" N  
Longitude: 136° 40' E  
Altitude: 500m

**Date:** Dec. 12  
**Time:** 10h 30m = 01h 10m (GMT)

**Data on Avalanche:**

Type (International classification): A2, B4, C2, D1, E5, F0

Orientation: ESE

**Dimensions:**

<table>
<thead>
<tr>
<th>Starting zone: Altitude</th>
<th>Width</th>
<th>Depth of fracture</th>
</tr>
</thead>
<tbody>
<tr>
<td>820 m</td>
<td>40 m</td>
<td>2 m</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Avalanche path: Length</th>
<th>Width</th>
<th>Average slope</th>
</tr>
</thead>
<tbody>
<tr>
<td>420 m</td>
<td>30 m</td>
<td>42°</td>
</tr>
</tbody>
</table>

**Deposit:** Maximum depth: 5.5 m  
Volume: 1800 m³

**Causes:**

THREE LAYERS (70, 55, 86 cm from ground to surface)

Weather (snowfall, wind, temperature): FAIR, CALM, +10°C

**Triggering mechanism (if known):**

**Casualties and Damage:**

<table>
<thead>
<tr>
<th>Number of persons killed</th>
<th>Injured</th>
<th>Rescued unharmed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>?</td>
<td>2</td>
</tr>
</tbody>
</table>

**Damage to buildings (type, number, degree of destruction):**

<table>
<thead>
<tr>
<th>Damage to buildings</th>
<th>Type</th>
<th>Number</th>
<th>Degree of destruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Other damage (forests, communications, etc.):**

A PENCE FOR PROTECTING FALLING STONES WAS DAMAGED BY 20m LONG.

**Remarks (rescue work, former history of avalanches, etc.):**

EVERY YEAR, WE HAVE SOME AVALANCHES AT THIS POINT.

**Attach photographs and/ or sketches if possible.** *Please use metric system

**Note:** This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,  
Department of Environmental Sciences,  
Unesco,  
Place de Fontenoy,  
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: JAPAN

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)
FUTAPAT-U'DAT-CHO, HIGAHI-KUBIKI-SUN, NIIGATA-FEN

Latitude: 37°07'N Longitude: 138°37'E Altitude: 350m

DATE: Dec. 26, 1970, Time: 16h 40m = 07h 40m (GMT)

DATA ON AVALANCHE:
Type (International classification): A2, B4, C2, D1, E2, F0

Dimensions:
Starting zone: Altitude: 350 m Width: .............. Depth of fracture: 1m
Avalanche path: Length: .............. Width: .............. Average slope: ..............
Deposit: Maximum depth: .............. Volume: ..............

Causes
Snow structure: SNow DEPTH: 110cm
Weather (snowfall, wind, temperature): CLEAN, CALM, +2.1°C

Triggering mechanism (if known):

CASUALTIES AND DAMAGE:
Number of persons killed: 1; injured: 0; rescued unharmed: 0
Damage to buildings (type, number, degree of destruction): ..............
Other damage (forests, communications, etc.): ..............

REMARKS (rescue work, former history of avalanches, etc.)

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: JAPAN       Winter 1970/1971       Serial No.: 5

Name and address of reporter: ________________________________

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)

OASA-SHIHIZU, SHIOZAWA-CHO, MINAMI-UONUMA-SUN, NIIGATA-KEN

Latitude: 36°58'N       Longitude: 138°37'E       Altitude: 1600 m

DATE: Jan. 1, 1971       Time: 10h 30m = 01h 30m (GMT)

DATA ON AVALANCHE:

Type (International classification): A4 B2 C1 D2 E1 F1

Orientation: 5

Dimensions:

Starting zone: Altitude: 1700 m       Width: —       Depth of fracture: 30-40 cm

Avalanche path: Length: 200 m       Width: 80 m       Average slope: —

Deposit: Maximum depth: —       Volume: —

Causes

Snow structure: NEW SNOW: 30-40 cm

Weather (snowfall, wind, temperature): FRI

Triggering mechanism (if known): —

CASUALTIES AND DAMAGE:

Number of persons killed: 2       Injured: 0       Rescued unharmed: 0

Damage to buildings (type, number, degree of destruction): —

Other damage (forests, communications, etc.): —

REMARKS (rescue work, former history of avalanches, etc.): —

Attach photographs and/or sketches if possible. * Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
COUNTRY: Japan

Name and address of reporter: Institute of Solid Earth Science, Kyoto University

<table>
<thead>
<tr>
<th>Serial number</th>
<th>Date</th>
<th>Location</th>
<th>Category</th>
<th>Number of deaths</th>
<th>Number of injured</th>
<th>Damage</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jan. 16</td>
<td>36°58'N 130°22'E</td>
<td>T</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Feb. 10(7)</td>
<td>35°43'N 139°18'E</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>Uninhabited hut</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Feb. 11</td>
<td>35°25'N 135°35'E</td>
<td>T</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Feb. 16</td>
<td>35°22'N 139°42'E</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>Road, forest and buildings</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Mar. 20</td>
<td>35°18'N 138°56'E</td>
<td>T</td>
<td>24</td>
<td>0</td>
<td>3 cars</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Apr. 10</td>
<td>35°03'N 139°56'E</td>
<td>T</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

* For accident to tourists, mark T; to people at work, mark W; to residents, mark R; to communications (roads, railways), mark C.

Note: This form should be completed in duplicate at the end of each winter season, and sent, together with the reports on individual avalanches, to the following address:

The Director
Department of Environmental Sciences
Unesco
Place de Fontenay
Vincennes 75 (France)
UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION

Department of Environmental Sciences

Report on Destructive Avalanche

COUNTRY: Japan, Winter 1971/1972

Name and address of reporter: Institute of Snow and Ice Studies, National Research Center

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)

Mt. Yoko-ike, Kitayama-machi, Chino-shi, Nagano-ken

Latitude: 35°54'N, Longitude: 130°22'E

Altitude: 2,300m

DATE: Jan. 16, 1972; Time: 3:55 AM = Jan. 15, 20°59' (GMT)

DATA ON AVALANCHE:

Type (International classification): E. 4, D. 1, C. 1, B. 2, E. 2, F. 1

Dimensions:

Starting zone: Altitude: 2,300m

Width: 6m

Depth of fracture: Width: 50m

Average slope: (3m)

Deposit: Maximum depth:

Volume:

Causes

Snow structure:

Weather (snowfall, wind, temperature): Clear

Triggering mechanism (if known): None

CASUALTIES AND DAMAGE:

Number of persons killed: 2; injured: 3; rescued unharmed: 4

Damage to buildings (type, number, degree of destruction): None

Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of avalanches, etc.)

Persons killed and injured were mountain climbers. Parties bivouacking near the scene and the mountain patrol (total 40 persons) did the rescue work. There was no avalanche damage before.

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
COUNTRY: Japan

Name and address of reporter: Institute of Snow and Ice Studies, National Research Center for Disaster Prevention, Sugashimachi, Nagano-shi, Nagaoka-ken,

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)

Hida, 1504, Sato, Yamanashi-ken, Yamanashi-ken

Latitude: 35º42'N Longitude: 138º10'E Altitude: 2,500m

DATE: Feb. 10 (?), 1972; Time: 9:00 (GMT)

DATA ON AVALANCHE:


Orientation: East

Dimensions:

Starting zone: Altitude: 2,600m Width: 50m Depth of fracture:

Avalanche path: Length: 100m Width: 50m Average slope:

Deposit: Maximum depth: 4m Volume:

Causes

Snow structure:

Weather (snowfall, wind, temperature):

Triggering mechanism (if known):

CASUALTIES AND DAMAGE:

Number of persons killed: 0; injured: 0; rescued unharmed: 0

Damage to buildings (type, number, degree of destruction): Uninhabited but (completely destroyed).

Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of avalanches, etc.)

Main source: Found the hut destroyed by the avalanche on Feb. 10. Therefore, the date was unknown and the detailed information on the avalanche could not be obtained.

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
UNESCO,
Place de Fontenoy,
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: Japan  Winter 1971/1972  Serial No.: 3

Name and address of reporter: Institute of Snow and Ice Studies, National Research Center... for Disaster Prevention, Mayoshi-machi, Makeoka-shi, Hirota-ken...

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)  Funo, Tottori-ken, Mt. Daizen (the Taki-no-maw Ridge of North Wall), Daizen-machi, Saihaku-i.
Latitude: 35°23' N  Longitude: 133°35'E  Altitude: ...

DATE: Feb. 11, 1972  Time: About 12:30 = 3:30 (GMT)

DATA ON AVALANCHE:
Type (International classification): A 1  B 2  C 2  D 0  E 0  F 0
Dimensions:
Starting zone: Altitude: About 1,700m  Width: 20~40m  Depth of fracture: 0.4~0.5m
Avalanche path: Length: 1,200m  Width: 20~40m  Average slope: 40°
Deposit: Maximum depth:  Volume: ...

Causes:
Snow structure: New snow of 0.4~0.5m on 2m old snow...
Weather (snowfall, wind, temperature): Cold, +3°C (at 3°C GMT)
Triggering mechanism (if known): The air temperature of the day was higher than the average by 4.5°C.

CASUALTIES AND DAMAGE:
Number of persons killed: 3  injured: 5  rescued unharmed: 0
Damage to buildings (type, number, degree of destruction): None
Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of avalanches, etc.):
Six persons were buried under the debris and three persons were rescued. Many avalanches occur at the North Wall of Mt. Daizen, because of steepness of the slopes and quick changes of weather.

Attach photographs and/or sketches if possible. * Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:
The Director, Department of Environmental Sciences, Unesco, Place de Fontenoy, Paris 7e (France)

-23-
Report on Destructive Avalanche

COUNTRY: Japan

Name and address of reporter: Institute of Snow and Ice Studies, National Research Center for Disaster Prevention, Sugoshi-machi, Nagano-shi, Niigata-ken.

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)

Mt. Fuji, Harumoto-mura, Minami-takai-gun, Yamanashi-ken.

Latitude: 35°22'N Longitude: 138°42'E Altitude: 2,025m

DATE: Feb. 16, 1972

TIME: About 12:00 a.m. (GMT)

DATA ON AVALANCHE:

Type (International classification): A 4, B 2, C 2, D 1, E 2, F 2

Dimensions:

Starting zone: Altitude: 2,200m Width: 20m Depth of fracture: 1m
Avalanche path: Length: 2,700m Width: 150m Average slope: 28°
Deposit: Maximum depth: 5m Volume: 7,600m³

Cause:

Snow structure: New snow on the crust. Snow cover.
Weather (snowfall, wind, temperature): Cloudy. No wind. -6°C to -7°C.

Triggering mechanism (if known): Rain

CASUALTIES AND DAMAGE:

Number of persons killed: 0 injured: 0 rescued unharmed: 0

Damage to buildings (type, number, degree of destruction): Uninhabited stall (completely destroyed), public latrine (partly destroyed).

Other damage (forests, communications, etc.): Forest 0.2 ha and facilities of road.

REMARKS (rescue work, former history of avalanches, etc.): An avalanche once occurred about 70 years ago.

Attach photographs and/or sketches if possible.

Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
REPORT ON DESTRUCTIVE AVALANCHE

COUNTRY: Japan  Winter 1971/1972  Serial No.: 5

Name and address of reporter: Institute of Snow and Ice Studies, National Research Center for Disaster Prevention, Shyogah-cho, Nagano-shi, Nagano-ken.

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path) Mt. Fuji, Gotenba-shi, Shizuoka-ken.

Latitude: 35°19'N  Longitude: 138°56'E  Altitude: 1,500m


DATA ON AVALANCHE:

Type (International classification): A 5  B 4  C 2  D 5  E 2  F 2

Dimensions:

Starting zone: Altitude: 1,800~2,000m  Width: 20~50m

Avalanche path: Length: Max. 2,800m  Min. 2,000m  Width: 1,600m

Deposit: Maximum depth: 10~20cm  Minimum depth: 5~10cm  Average slope: 35°

Causes:

Snow structure: ...
Weather (snowfall, wind, temperature): Rain and fog, S 11.5m/sec, +13.2°C (Mar. 20, 06:00 GMT)

Triggering mechanism (if known): Rain...

CASUALTIES AND DAMAGE:

Number of persons killed: 24  injured: 0  rescued unharmed: 0

Damage to buildings (type, number, degree of destruction): None

Other damage (forests, communications, etc.): A car was at the parking lot of the Gotenba ski field.

REMARKS (rescue work, former history of avalanches, etc.)

References: A sketch of the avalanche and a table of the past avalanches at the Gotenba route of Mt. Fuji are attached.

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)

-25-
### PAST AVALANCHES AT THE GOTENBA ROUTE OF Mt. FUJI

Reported by the Mt. Fuji Weather Station

<table>
<thead>
<tr>
<th>No.</th>
<th>Date</th>
<th>Location</th>
<th>Time</th>
<th>Casualties and damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mar. 2, 1947</td>
<td>from the 2nd station to Taro-bo</td>
<td>about 18:30m</td>
<td>power-transmission line</td>
</tr>
<tr>
<td>2</td>
<td>Apr. 2, 1947</td>
<td>the 5th station</td>
<td>unknown</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Mar. 13, 1948</td>
<td></td>
<td>13:15, 13:45</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>May, 15, 1949</td>
<td>the 6.5th station</td>
<td>7:6, 9:55, 11:10</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Mar. 7, 1950</td>
<td>unknown</td>
<td>unknown</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Mar. 26, 1951</td>
<td></td>
<td>6:20</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Feb. 27-28, 1954</td>
<td></td>
<td>unknown</td>
<td>two huts of the 2.5th station and the 2nd station</td>
</tr>
<tr>
<td>8</td>
<td>Mar. 18, 1955</td>
<td>the 6th station</td>
<td>unknown</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Mar. 17, 1956</td>
<td>right side of climbing route</td>
<td>5:16</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Mar. 19, 1956</td>
<td>the 3rd station</td>
<td>11:40, 12:10</td>
<td>power-transmission line and electric pole</td>
</tr>
<tr>
<td>11</td>
<td>Jan. 30, 1959</td>
<td>the 2.0th station</td>
<td>about 22h</td>
<td>Oishi tea shop</td>
</tr>
</tbody>
</table>


2) Including the avalanches which had neither casualties nor damage.
Report on Destructive Avalanche

COUNTRY: Japan

Name and address of reporter: Institute of Snow and Ice Studies, National Research Center for Disaster Prevention, Syosho-machi, Nasu-ku, Tochigi-ken.

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path) Mt. Asahi-Dake, Yumoto, Nasu-ku, Nasu-gun, Tochigi-ken.

Latitude: 37°00'N Longitude: 139°50'E Altitude: 1,700m

DATE: Apr. 10, 1972 Time: About 10 a.m. (GMT)

DATA ON AVALANCHE:

Type (International classification): A A B C D E 2 F 2

Orientation:

Dimensions:

Starting zone: Altitude: 1,700m Width: 20m Depth of fracture:

Avalanche path: Length: 150m Width: 20m Average slope:

Deposit: Maximum depth: Volume:

Cause:

Snow structure:

Weather (snowfall, wind, temperature):

Triggering mechanism (if known):

CASUALTIES AND DAMAGE:

Number of persons killed: 2; injured: 0; rescued unharmed: 1

Damage to buildings (type, number, degree of destruction): None

Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of avalanches, etc.): The slope is said to be on avalanche site where we have many avalanches frequently. The Kuroiso police party and the Kuroiso mountain rescue party (total 23 persons) did the rescue activities.

Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director, Department of Environmental Sciences, Unesco, Place de Fontenoy, Paris 7e (France)
**UNIVERSITY OF EDUCATION, SCIENTIFIC AND CULTURAL ORGANIZATION**  
Department of Environmental Sciences  
ANNUAL REPORT ON DESTRUCTIVE AVALANCHES

<table>
<thead>
<tr>
<th>Serial number</th>
<th>Date</th>
<th>Location</th>
<th>Category*</th>
<th>Number of deaths</th>
<th>Number of injured</th>
<th>Damage</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nov. 21</td>
<td>43°30' 15°12'1' (San-no-sawa, Sókaidó)</td>
<td>T</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Dec. 1</td>
<td>36°12' 15°13'1' (Kama Tunnel, Nagano)</td>
<td>T</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Jan. 2–3</td>
<td>36°18' 15°17'40' (Mt. Kita-hodaka, Nagano)</td>
<td>T</td>
<td>4 (missing)</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Jan. 29</td>
<td>35°51' 15°13'57'51' (Hishe-no-kura-sawa, Gunma)</td>
<td>T</td>
<td>2 (missing)</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>May 17</td>
<td>37°18' 15°13'57' (Hakojuri Pass, Fukuoka)</td>
<td>W</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

* For accident to tourists, mark T; to people at work, mark W; to residents, mark R; to communications (roads, railways), mark C.

**Note:** This form should be completed in duplicate at the end of each winter season; and sent, together with the reports on individual avalanches, to the following address:

The Director  
Department of Environmental Sciences  
Unesco  
Place de Fontenoy  
Paris 7e (FRANCE)
Report on Destructive Avalanche

COUNTRY: Japan  Winter 1972/1973  Serial No.: 1

Name and address of reporter: Institute of Snow and Ice Studies, National Research Center, for Disaster Prevention, Higashimachi, Nagaoka-shi, Niigata-ken.

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)

Tan-no-sawa, Mt. Daisetsu, Higashikawa-machi, Hazikawa-gun, Hokkaido.

Latitude: 43° 09' 15"  Longitude: 143° 31' 12"  Altitude: 1,350m

DATE: Nov. 21, 1972; Time: About 8:30 a.m.

DATA ON AVALANCHE:

Type (International classification): A 2  B 6  C 2  D 2  E 2

Dimensions:

Starting zone: Altitude: 40m Width: 40m Depth of fracture: 1.5m

Avalanche path: Length: 300m Width: 40m Average slope: 25°

Deposit: Maximum depth: 4m Volume: 400m³

Causes:

Snow structure: Not snow on the new snow

Weather (snowfall, wind, temperature): Snow storm, 10m/sec, 49°C

Triggering mechanism (if known):

CASUALTIES AND DAMAGE:

Number of persons killed: 5; injured: 0; rescued unhurt: 1 (escaped by himself)

Damage to buildings (type, number, degree of destruction): (A tent was buried)

Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of avalanches, etc.): Many avalanches occur in the beginning of winter and the thawing period.

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
**Report on Destructive Avalanche**

**COUNTRY:** Japan  
**Winter 1972/1973**  
**Serial No.:** 2

Name and address of reporter: Institute of Snow and Ice Studies, National Research Center for Disaster Prevention, Susaki-machi, Nagano-shi, Nagano-ken.

**LOCATION:**  
Kamikochi (on the Karamori side), Kamikochi, Minami-aizuwakamatsu, Nagano-ken.
Latitude: 36°13'N  
Longitude: 137°37'E  
Altitude: 1,400m

**DATE:** Dec. 2, 1972  
**Time:** 14°50' = 5°30' (GMT)

**DATA ON AVALANCHE:**

<table>
<thead>
<tr>
<th>Type (International classification)</th>
<th>A: 0</th>
<th>B: 1</th>
<th>C: 2</th>
<th>D: 2</th>
<th>E: 1</th>
</tr>
</thead>
</table>

**Orientation:** South-east

**Dimensions**

- **Starting zone:**  
  Altitude: 1,450m  
  Width: 7m  
  Depth of fracture: 2m

- **Avalanche path:**  
  Length: 50m  
  Width: 7m  
  Average slope: 

- **Deposit:**  
  Maximum depth: 
  Volume: 

**Causes**

- Snow structure: 
- Weather (snowfall, wind, temperature): Snow storm

**Triggering mechanism (if known):** 

**CASUALTIES AND DAMAGE:**

- **Number of persons killed:** 1  
- **Injured:** 0  
- **Rescued unharmed:** 3

- **Damage to buildings (type, number, degree of destruction):** None

- **Other damage (forests, communications, etc.):** None

**REMARKS (rescue work, former history of avalanches, etc.):**

- A member who was climbing for rescue work of colleague members was struck by the avalanche.
- In March 20, 1972, two persons were attacked by an avalanche at the point twenty feet away from this place.

**Attach photographs and/or sketches if possible.**

*Please use metric system

**Note:** This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,  
Department of Environmental Sciences,  
Unesco,  
Place de Fontenoy,  
Pans 7e (France)
REPORT ON DESTRUCTIVE AVALANCHE

COUNTRY: Japan

Winter 1972/1973

Name and address of reporter: Institute of Snow and Ice Studies, National Research Center for Disaster Prevention, Suoani-machi, Higashii, Niigata-ken.

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)
Latitude: 36° 13' N Longitude: 137° 40' E Altitude: About 1,900 m

DATE: Jan. 1; Jan. 2, 1973 Time: 2:00 A.M. (GMT)

DATA ON AVALANCHE:

Dimensions:
Starting zone: Altitude: Width: Depth of fracture:
Avalanche path: Length: Width: 80 m Average slope:
Deposit: Maximum depth: Volume:

Causes
Snow structure: 
Weather (snowfall, wind, temperature): Rain and snowstorm.

Triggering mechanism (if known): Rain.

CASUALTIES AND DAMAGE:
Number of persons killed: 4 (missing); injured: 0; rescued unhurt: 0.

Damage to buildings (type, number, degree of destruction): None.

Other damage (forests, communications, etc.): None.

REMARKS (rescue work, former history of avalanches, etc.)

The avalanche came from the North Ridge of Mt. Kita-hodaka and the victims were struck at the point of 700 m upward from Haruna Bridge.
The slope is said to be an avalanche site where we have many avalanches frequently.
In 1967, seven persons were buried alive here.

Attach photographs and/or sketches if possible.

* Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)

-35-
Report on Destructive Avalanche

Country: Japan

Date: Jan. 29, 1972

Data on Avalanche:
Type (International classification): A0 B1 C1 D2 E0 F1

Dimensions:
Starting zone: Altitude: Width: 50-60 m
Avalanche path: Length: 600 m Width: Average slope:
Deposit: Maximum depth: Volume:

Causes:
About one meter of new snow on the old snow
Weather (snowfall, wind, temperature): Snow storm

Triggering mechanism (if known):

Casualties and Damage:
Number of persons killed: 2 (missing); injured: 0; rescued unharmed: 4 (escaped by themselves)
Damage to buildings (type, number, degree of destruction): None

Other damage (forests, communications, etc.): None

Remarks (rescue work, former history of avalanches, etc.):
The case of successive two avalanches: The first avalanche hit four persons.
By this avalanche one was buried and three escaped by themselves.
One of three returned to ask for help, while two persons stayed there, they were struck again by another avalanche. The one was buried and the other escaped by himself.

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent in duplicate, together with the corresponding annual avalanche report, to the following address:
The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: Japan
Winter 1972/1973
Serial No.: 5

Name and address of reporter: Institute of Snow and Ice Studies, National Research Center
For Disaster Prevention, Mino-cho, Mino-ku, Nagoya-shi, Mie-ken

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)
Hokuyuri Pass, Kts. Omi-gata-ura, Tadami-cho, Mino-zu-gun, Inishima-ken
Latitude: 37°10'N
Longitude: 139°13'12"
Altitude: About 1,000m

DATE: May 17, 1973
Time: 4:30 = May 16, 22:30 (GMT)

DATA ON AVALANCHE:
Type (International classification): A1
Dimensions:
Starting zone: Altitude: About 1,000m
Width: 3m
Depth of fracture: 1m
Avalanche path: Length: 1km
Width: 2m
Average slope: 30°
Deposit: Maximum depth: 1m
Volume:

Causes:
Snow structure:
Weather (snowfall, wind, temperature): Cloudy, 1m/sec, +19°C (at 9 in Inishima-ken)

Triggering mechanism (if known):

CASUALTIES AND DAMAGE:
Number of persons killed: 1
Injured: 1
Rescued unharmed: 0
Damage to buildings (type, number, degree of destruction): None

Other damage (forests, communications, etc.):

REMARKS (rescue work, former history of avalanches, etc.)

Victims were taking a kind of mountain plant for food.

Attach photographs and/or sketches if possible. * Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
### UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION
Department of Environmental Sciences
ANNUAL REPORT ON DESTRUCTIVE AVALANCHES

<table>
<thead>
<tr>
<th>Serial number</th>
<th>Date</th>
<th>Location</th>
<th>Category*</th>
<th>Number of deaths</th>
<th>Number of injured</th>
<th>Damage</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>21 Dec.</td>
<td>37°49'N 139°30'E</td>
<td>W</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>Mountaineers</td>
</tr>
<tr>
<td>2</td>
<td>1 Jan.</td>
<td>35°40'N 138°14'E</td>
<td>T</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Tour skiers</td>
</tr>
<tr>
<td>3</td>
<td>12 Jan.</td>
<td>36°48'N 138°08'E</td>
<td>T</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>Railway</td>
</tr>
<tr>
<td>4</td>
<td>16 Jan.</td>
<td>36°59'N 138°31'E</td>
<td>C</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Building</td>
</tr>
<tr>
<td>5</td>
<td>24 Jan.</td>
<td>39°09'N 140°17'E</td>
<td>R</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Building</td>
</tr>
<tr>
<td>6</td>
<td>24 Jan.</td>
<td>40°15'N 140°50'E</td>
<td>W</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>Building</td>
</tr>
<tr>
<td>7</td>
<td>24 Jan.</td>
<td>40°17'N 140°15'E</td>
<td>T</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>Building</td>
</tr>
<tr>
<td>8</td>
<td>26 Jan.</td>
<td>39°18'N 140°37'E</td>
<td>R</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>Ski lift &amp; c.</td>
</tr>
<tr>
<td>9</td>
<td>28 Jan.</td>
<td>37°32'N 139°08'E</td>
<td>T</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>Nursery school</td>
</tr>
<tr>
<td>10</td>
<td>9 Feb.</td>
<td>36°39'N 137°48'E</td>
<td>C</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Tour skiers</td>
</tr>
<tr>
<td>11</td>
<td>10 Feb.</td>
<td>39°00'N 140°40'E</td>
<td>R</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Building</td>
</tr>
<tr>
<td>12</td>
<td>10 Feb.</td>
<td>36°07'N 138°10'E</td>
<td>T</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>Tour skiers</td>
</tr>
</tbody>
</table>

* For accident to tourists, mark T; to people at work, mark W; to residents, mark R; to communications (roads, railways), mark C.

**Note:** This form should be completed in duplicate at the end of each winter season; and sent, together with the reports on individual avalanches, to the following address:

**The Director**  
Department of Environmental Sciences  
Unesco  
Place de Fontenoy  
Paris 7e (FRANCE)
**COUNTRY: **

**Winter 1977/1978**

Name and address of reporter: Institute of Snow and Ice Studies

<table>
<thead>
<tr>
<th>Serial number</th>
<th>Date</th>
<th>Location</th>
<th>Category</th>
<th>Number of deaths</th>
<th>Number of injured</th>
<th>Damage</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>11 Feb</td>
<td>35°59'N 138°21'E</td>
<td>T</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>Mountaineers</td>
</tr>
<tr>
<td>14</td>
<td>23 Feb</td>
<td>36°50'N 137°43'E</td>
<td>W</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>Tour skier</td>
</tr>
<tr>
<td>15</td>
<td>24 Feb</td>
<td>36°06'N 138°12'E</td>
<td>T</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>4 Mar</td>
<td>35°13'N 136°39'E</td>
<td>T&amp;C</td>
<td>0</td>
<td>0</td>
<td>Road &amp; car</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>6 Mar</td>
<td>40°20'N 140°45'E</td>
<td>R</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Buildings</td>
</tr>
<tr>
<td>19</td>
<td>10 Mar</td>
<td>42°30'N 139°44'E</td>
<td>R</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>15 Mar</td>
<td>36°32'N 134°38'E</td>
<td>T</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>Motor car</td>
</tr>
<tr>
<td>20</td>
<td>18 Mar</td>
<td>39°45'N 137°46'E</td>
<td>R</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>Mountaineers</td>
</tr>
<tr>
<td>21</td>
<td>22 Mar</td>
<td>40°10'N 140°30'E</td>
<td>R</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Buildings</td>
</tr>
<tr>
<td>22</td>
<td>23-24 Mar</td>
<td>36°35'N 137°45'E</td>
<td>T</td>
<td>9</td>
<td>2</td>
<td>0</td>
<td>Mountaineers</td>
</tr>
<tr>
<td>23</td>
<td>25 Mar</td>
<td>42°56'N 141°02'E</td>
<td>T</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>Tour skiers</td>
</tr>
<tr>
<td>24</td>
<td>26 Mar</td>
<td>39°29'N 139°27'E</td>
<td>W</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

* For accident to tourists, mark T; to people at work, mark W; to residents, mark R; to communications (roads, railways), mark C.

**Note:** This form should be completed in duplicate at the end of each winter season, and sent, together with the reports on individual avalanches, to the following address:

The Director  
Department of Environmental Sciences  
Unesco  
Place de Fontenoy  
Paris 7e (FRANCE)
**UNIVERSITY OF EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION**

Department of Environmental Sciences

**ANNUAL REPORT ON DESTRUCTIVE AVALANCHES**

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<thead>
<tr>
<th>Serial number</th>
<th>Date</th>
<th>Location</th>
<th>Category*</th>
<th>Number of deaths</th>
<th>Number of injured</th>
<th>Damage</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>1 Apr.</td>
<td>40°11'N 140°39'W</td>
<td>W</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>8 Apr.</td>
<td>37°15'N 139°48'W</td>
<td>T</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

* For accidents to tourists, mark T; to people at work, mark W; to residents, mark R; to communications (roads, railways), mark C.

**Note:** This form should be completed in duplicate at the end of each winter season; and sent, together with the reports on individual avalanches, to the following address:

The Director  
Department of Environmental Sciences  
Unesco  
Place de Fontenoy  
Paris 7e (FRANCE)
Report on Destructive Avalanche

COUNTRY: Japan

Name and address of reporter: Institute of Snow and Ice Studies, National Research Center for Disaster Prevention, Suyoshi-machi, Nagaoka-shi, Niigata-ken

LOCATION: Mt. Takiya, Shibata-shi, Niigata-ken

Latitude: 37°09'N
Longitude: 139°30'E
Altitude: 220 m

DATE: December 21, 1973
Time: 11h20m
GMT: 19h20m

DATA ON AVALANCHE:
Type (International classification): A1 E1 C1 D2 E1 F0 G1

Dimensions:
Starting zone: Altitude: 270 m Width: 2 m Depth of fracture: 1 m
50 m Width: 9 m Average slope: 40°
Deposit: Maximum depth: 3 m Volume:

Causes:
Snow structure:
Weather (snowfall, wind, temperature):
Clear

Triggering mechanism (if known):

CASUALTIES AND DAMAGE:
Number of persons killed: 0; injured: 2; rescued unharmed: 0

Damage to buildings (type, number, degree of destruction): None

Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of avalanches, etc.):
Hit while working at snow removal by bulldozer. Thirty workers of mine office near the scene did rescue work.

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: Japan

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)
Mt. Shirane (Mt. Kita-dake) Aya-mura, Nakakoma-gun, Yamanashi-ken

Latitude: 35°09'N Longitude: 138°14'E Altitude: 3,100 m

DATE: 1 January 1974 Time: About 12h30m = 2h30m (GWT)

DATA ON AVALANCHE:
Type (International classification): A1 F1 C1 E2 E0 G2

Dimensions:
Starting zone: Altitude: 3,100 m Width: 300 m Depth of fracture: 20 m
Avalanche path: Length: 500 m Width: 100 m Average slope: 45°
Deposit: Maximum depth: 100 m Volume: 6,000 m³

Causes
Snow structure: 1
Weather (snowfall, wind, temperature): Clear, no wind

Triggering mechanism (if known):

CASUALTIES AND DAMAGE:
Number of persons killed: 3; injured: 0; rescued unharmed: 0

Damage to buildings (type, number, degree of destruction): None

Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of avalanches, etc.)

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:
The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
**Report on Destructive Avalanche**

**COUNTRY:** Japan  
**Name and address of reporter:**  
**LOCATION:** (Name of district, nearest town or village, mountain area, avalanche path)  
Mt. Eurohime (near Eurohime, skiing ground) Shinano-machi, Kami-minoki-gun, Niigata-ken  
Latitude: 36°54'N  
Longitude: 138°06'E  
Altitude: 1,200 m  
**DATE:** 12 January 1974  
**Time:** 12:45 a.m.  
**DATA ON AVALANCHE:**  
**Type (International classification):** A1  
**Orientation:** East  
**Dimensions:**  
**Scarcity zone:** Altitude: 1,200 m  
**Width:**  
**Depth of fracture:**  
**Avalanche path:** Length: 300 m  
**Width:**  
**Average slope:** 27°  
**Deposit:** Maximum depth:  
**Volume:**  
**Causus:**  
**Snow structure:**  
**Weather (snowfall, wind, temperature):** Clear  
**Triggering mechanism (if known):**  
**CASUALTIES AND DAMAGE:**  
Number of persons killed: 2  
Injured: 0  
Rescued unharmed: 0  
Damage to buildings (type, number, degree of destruction): None  
**Other damage (forests, communications, etc.):** None  
**REMARKS (rescue work, former history of avalanches, etc.):** None  
**Attach photographs and/or sketches if possible.**  
*Please use metric system  
**Note:** This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:  
The Director,  
Department of Environmental Sciences,  
Unesco,  
Place de Fontenoy,  
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: Japan

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)
Tarusaka, Sakae-mura, Shimo-minachi-gun, Nagano-ken

DATE: 16th January 1974

DATA ON AVALANCHE:
Type (International classification): A 1.2.0.0.0.0.0.0

Dimensions:
Starting zone: Altitude: 300 m Width: 15 m Depth of fracture: ______
Avalanche path: Length: 200 m Width: 15 m Average slope: 70°
Deposit: Maximum depth: ______ Volume: 300 m³

Causes
Snow structure: Snow depth: about 3 m
Weather (snowfall, wind, temperature): ______

Triggering mechanism (if known): ______

CASUALTIES AND DAMAGE:
Number of persons killed: 0; injured: 0; rescued unharmed: 0
Damage to buildings (type, number, degree of destruction): None

Other damage (forests, communications, etc.): avalanche blocked railway and the train was derailed by the deposit

REMARKS (rescue work, former history of avalanches, etc.):

Attach photographs and/or sketches if possible. * Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:
The Director,
Department of Environmental Sciences,
UNESCO,
Place de Fontenoy,
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: Japan  Winter 1973/1974  Serial No.: 5

Name and address of reporter: __________________________________________________________

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)
Shimizusawa-mura, Chokai-machi, Yuri-gun, Akita-ken
Latitude: 39°09'N  Longitude: 140°17'E  Altitude: 300m

DATE: 24 January 1974  Time: 3h00m  = 23 January (GMT)
18h00m

DATA ON AVALANCHE:
Type (International classification): A2  E1  C1  D1  E1  F0  G2  Orientation: South-West

Dimensions:
Starting zone: Altitude: 400 m  Width: 50 m  Depth of fracture: 1 m
Avalanche path: Length: 150 m  Width: 50 m  Average slope: 35°
Deposit: Maximum depth: 3 m  Volume: 1,000 m³

Causes:
Snow structure: New snow on old snow cover
Weather (snowfall, wind, temperature): Snowfall, wind 7m/sec, temperature -21°C

Triggering mechanism (if known): 

CASUALTIES AND DAMAGE:
Number of persons killed: 0  injured: 0  rescued unharmed: 0
Damage to buildings (type, number, degree of destruction): One heavily damaged
Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of avalanches, etc.):

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:
The Director, Department of Environmental Sciences, Unesco, Place de Fontenoy, Paris 7e (France)

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Report on Destructive Avalanche

COUNTRY: Japan
winter: 1975-1976
Serial No.: 6

Name and address of reporter:

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)
National forest in Mt. Shibauchi, Kazuno-shi, Akita-ken
Latitude: 40°15'N
Longitude: 140°50'8"E
Altitude: 510 m

DATE: 24 January 1976
Time: 11h30m

DATA ON AVALANCHE:

Type (International classification): A2 B1 C1 D2 E1 F0 G1
Orientation: East

Dimensions:
Starting zone: Altitude: 600 m
Width: 13 m
Depth of fracture: 0.3 m

Avalanche path: Length: 400 m
Width: 13 m
Average slope: 40°

Deposit: Maximum depth: 1 m
Volume: 1,000 m³

Causes:
Snow structure: 

Weather (snowfall, wind, temperature):
Snowfall, wind: 60 km/sec, temperature: -1.5°C

Triggering mechanism (if known):

CASUALTIES AND DAMAGE:
Number of persons killed: 1
Injured: 2
Rescued unharmed: 0

Damage to buildings (type, number, degree of destruction): None

Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of avalanches, etc.):

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: Japan  Winter 1973/1974  Serial No.: 7

Name and address of reporter:

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)

Kashiha, Fujisato-machi, Yamamoto-gun, Akita-ken

Latitude: 40°17'N  Longitude: 140°12'E  Altitude: 160 m

DATE:  24 January  1974; Time: 12h05m  = 03h05m (GMT)

DATA ON AVALANCHE:

Type (International classification): A2 E4 G2

Dimensions:

Starting zone: Altitude: 250 m  Width: 230 m  Depth of fracture: 0.5 m

Avalanche path: Length: 100 m  Width: 230 m  Average slope: 40°

Deposit: Maximum depth: 5 m  Volume: 37,500 m³

Causes

Snow structure: Granular snow through all layer

Weather (snowfall, wind, temperature): Snowfall, wind: 3 m/sec, temperature: -1.0°C

High temperature

Triggering mechanism (if known):

CASUALTIES AND DAMAGE:

Number of persons killed: 1  injured: 1  rescued unharmed: 0

Damage to buildings (type, number, degree of destruction): None

Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of avalanches, etc.): 25 persons working at Subari dam station discovered the victim dead

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenay,
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: Japan

Name and address of reporter: 

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)
Kurayama, Osawa-machi, Yokote-shi, Akita-ken

Latitude: 39°18'N Longitude: 140°37'E Altitude: 140 m

DATE: 26 January 1974 Time: 22h30m = 13h30m (GMT)

DATA ON AVALANCHE:
Type (International classification): A2 B1 C1 D2 E2 F0 G2
Orientation: North-west

Dimensions:
Starting zone: Altitude: 220 m Width: 40 m Depth of fracture: 1 m
Avalanche path: Length: 150 m Width: 50 m Average slope: 39°
Deposit: Maximum depth: 5 m Volume: 7,500 m³

Causes:
Snow structure: 
Weather (snowfall, wind, temperature): Snowfall, wind: 2 m/sec, temperature: -1.3°C

Triggering mechanism (if known): 

CASUALTIES AND DAMAGE:
Number of persons killed: 0; injured: 1; rescued unharmed: 0
Damage to buildings (type, number, degree of destruction): One heavily destroyed

Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of avalanches, etc.)

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:
The Director,
Department of Environmental Sciences,
Unesco,
Place de Fonteney,
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: Japan Winter 1973/1974 Serial No.: 9

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)
Mt. Sankurobira, Nagano, Shitada-mura, Minami-kanbara-gun, Nitigata-ken

Latitude: 37°32'N Longitude: 139°08'E Altitude: 85 m

DATE: 28 January 1974 Time: 16h10m GMT = 07h10m

DATA ON AVALANCHE:
Type (International classification): A1 E1 C1 D1 F0 G1 Orientation: East

Dimensions:
Starting zone: Altitude: 155 m Width: 30 m Depth of fracture: 1 m
Avalanche path: Length: 60 m Width: 50 m Average slope: 30°
Deposit: Maximum depth: 5 m Volume: 1,500 m³

Causes:
Snow structure: New snow on granular snow
Weather (snowfall, wind, temperature): Cloudy, no wind

Triggering mechanism (if known):

CASUALTIES AND DAMAGE:
Number of persons killed: 1; injured: 0; rescued unharmed: 0
Damage to buildings (type, number, degree of destruction): None

Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of avalanches, etc.)
An avalanche occurred at the same site about 50 years ago. The victim is a pupil on her way home.

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:
The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: Japan

WINTER 1973/1974

Serial No.: 10

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)

Goryu-toni skiing ground, Hakuba-mura, Kita-asumi-gun, Nagano-ken

Latitude: 36°39'N
Longitude: 137°48'E
Altitude: 970-1,090 m

DATE: 8 February 1974; Time: 08h00m = 8 February (GMT) 23h00m

DATA ON AVALANCHE:

Type (International classification): A6 E1 G1 D2 E1 F0 G1
Orientation: East

Dimensions:

Starting zone: Altitude: 1,400 m Width: Width: Depth of fracture: 0.5-1 m
Avalanche path: Length: 1,100 m Width: 40-60 m Average slope: 40°
Deposit: Maximum depth: 3 m Volume: 

Camera:

Snow structure: New snow more than 1 m
Weather (snowfall, wind, temperature): Snow storm, wind; average 25 m/sec, max. 38 m/sec

Triggering mechanism (if known): Strong wind

CASUALTIES AND DAMAGE:

Number of persons killed: 0; injured: 0; rescued unharmed: 0

Damage to buildings (type, number, degree of destruction): Operation house for ski lift completely destroyed

Other damage (forests, communications, etc.): Supporting structures of the ski-lift

REMARKS (rescue work, former history of avalanches, etc.)

Frequent avalanche site

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: Japan

Name and address of reporter:

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)
Katsuragawa, Minase-mura, Ogachi-gun, Akita-ken

Latitude: 39°00'N Longitude: 140°40'E Altitude: 3240 m

DATE: 10 February 1974 Time: 6h35m

DATA ON AVALANCHE:

Type (International classification): A1 B4 C2 D1 E2 F0 G2

Orientation: South-west

Dimensions:

Starting zone: Altitude: 500 m Width: 50 m Depth of fracture: 1 m
Avalanche path: Length: 150 m Width: 50 m Average slope: 37°
Deposit: Maximum depth: 5 m Volume: 12,000 m³

Causes

Snow structure: New snow on old snow cover
Weather (snowfall, wind, temperature):

Triggering mechanism (if known): Snow cornice

CASUALTIES AND DAMAGE:

Number of persons killed: 0; injured: 0; rescued unharmed: 0
One nursery school completely destroyed

Damage to buildings (type, number, degree of destruction):

Other damage (forests, communications, etc.):

None

REMARKS (rescue work, former history of avalanches, etc.):

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: Japan

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)
The Kirigamine Heights, Wada-mura, Chisagata-gun, Nagano-ken

Latitude: 36°07' E  Longitude: 138°10' E  Altitude: 1,700 m

DATE: 10 February 1974  Time: 16h00m  GMT: 7h00m

DATA ON AVALANCHE:
Type (International classification): A0 E1 C1 D0 B0 G0 C1

Dimensions:
Starting zone: Altitude: 1,600 m  Width:  Depth of fracture:
Avalanche path: Length:  Width:  Average slope:
Deposit: Maximum depth:  Volume:

Causes:
Snow structure:
Weather (snowfall, wind, temperature): Strong wind

Triggerng mechanism (if known):

CASUALTIES AND DAMAGE:
Number of persons killed: 1  Injured: 1  rescued unharmed: 0
Damage to buildings (type, number, degree of destruction): None
Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of avalanches, etc.)

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:
The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: Japan

Name and address of reporter:

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)

Mt. Toko-dake (Tatsugatake mountain range), Chino-shi, Nagano-ken

Latitude: 35°59'N
Longitude: 138°21'E
Altitude: 2,700 m

DATE: 11 February 1974, Time: 08h30m
= 10 February (GMT) 23h30m

DATA ON AVALANCHE:

Type (International classification): A0 E1 C1 D2 E1F0 G1
Orientation:  

Dimensions:

Starting zone: Altitude: 2,500 m
Width: Depth of fracture: 

Avalanche path: Length: 
Width: Average slope: 

Deposit: Maximum depth: 
Volume: 

Causes:

Snow structure: One meter of new snow, snow depth: 2 m

Weather (snowfall, wind, temperature): Fog, temperature: below -10°C

Triggering mechanism (if known): 

CASUALTIES AND DAMAGE:

Number of persons killed: 3; injured: 0; rescued unharmed: 0

Damage to buildings (type, number, degree of destruction): None

Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of avalanches, etc.)

Attach photographs and/or sketches if possible. * Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)

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Report on Destructive Avalanche

COUNTRY: Japan

LOCATION: Site of construction for Shintakane-ya was power station, Omachi-shi, Nagano-ken
Latitude: 36°30'N
Longitude: 137°53'E
Altitude: ________________

DATE: 23 February 1973
Time: 09h30m

DATA ON AVALANCHE:
Type (International classification): A0 E0 G0 D0 E0 G0
Oriention: ________________

Dimensions:
Starting zone: Altitude: ________________ Width: ________________ Depth of fracture: ________________
Avalanche path: Length: ________________ Width: ________________ Average slope: ________________
Deposit: Maximum depth: ________________ Volume: ________________

Causes:
Snow structure: ________________
Weather (snowfall, wind, temperature): ________________
Triggering mechanism (if known): ________________

CASUALTIES AND DAMAGE:
Number of persons killed: ________________; injured: ________________; rescued unharmed: ________________
Damage to buildings (type, number, degree of destruction): ________________
Other damage (forests, communications, etc.): ________________

REMARKS (rescue work, former history of avalanches, etc.)

Attach photographs and/or sketches if possible. * Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris, 7e (France)
UNIVERSITY OF EDUCATIONAL,
SCIENTIFIC AND CULTURAL ORGANIZATION

Department of Environmental Sciences

Report on Destructive Avalanche

COUNTRY: Japan

Name and address of reporter:

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)
Mt. Karuma skiing ground, Chinowaki, Nagano-ken

Latitude: 36°05'N Longitude: 138°12'E Altitude: 1,900 m

DATE: 24 February 1974 Time: 06h30m (GMT)

DATA ON AVALANCHE:
Type (International classification): AO BI CO JD EO FO GO

Dimensions:
Starting zone: Altitude: 1,900 m Width: 50 m Depth of fracture: 1 m
Avalanche path: Length: 100 m Width: 50 m Average slope:
Deposit: Maximum depth:
Volume:

Causes:
Snow structure:
Weather (snowfall, wind, temperature):
Snowstorm

Triggersing mechanism (if known):

CASUALTIES AND DAMAGE:
Number of persons killed: 1; injured: 0; rescued unharmed: 0

Damage to buildings (type, number, degree of destruction):
None

Other damage (forests, communications, etc.):
None

REMARKS (rescue work, former history of avalanches, etc.)

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:
The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: Japan

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)
Fukase, Oyuchi-machi, Ishikawa-gun, Ishikawa-ken
Latitude: 36°13'N Longitude: 136°38'E Altitude: 350 m

DATE: 4 March (1973) Time: 17h30m = 08h30m (GMT)

DATA ON AVALANCHE:
Type (International classification): A2 E4 C1 D1 B2 F0 G2
Orientation: West

Dimensions:
Starting zone: Altitude: 400 m Width: 20 m Depth of fracture: …
Avalanche path: Length: 70 m Width: 20-30 m Average slope: 45°
Deposit: Maximum depth: 40 m Volume: 500 m³

Causes
Snow structure: Snow depth: 253 cm
Weather (snowfall, wind, temperature): Temperature: -6°C at 16h00m

Triggering mechanism (if known): …

CASUALTIES AND DAMAGE:
Number of persons killed: 0 injured: 0 rescued unharmed: 0

Damage to buildings (type, number, degree of destruction): None

Other damage (forests, communications, etc.): Road blocked and one motorcar damaged

REMARKS (rescue work, former history of avalanches, etc.): Frequent avalanche site, but no rescue work before

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:
The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: Japan
Winter 1973-1974
Serial No.: 17

Name and address of reporter:

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)

Tsukushimori, Kosaka-machi, Kasuno-gun, Akita-ken

Latitude: 40°20'N
Longitude: 140°45'E
Altitude: 800 m

DATE: 6 March 1979
Time: 06:30 am = 5 March 21:30 pm (JST)

DATA ON AVALANCHE:

Type (International classification): A2 B4 C2 D1 E2 F0 G2

Dimensions:

Starting zone: Altitude: 180 m Width: 30 m Depth of fracture: 1 m

Avalanche path: Length: 100 m Width: 30 m Average slope: 35°

Deposit: Maximum depth: 3 m Volume: 3,000 m³

Causes

Snow structure: Granular snow throughout all layer

Weather (snowfall, wind, temperature): Cloudy, no wind, temperature: -1.2°C

Triggering mechanism (if known): Snow cornice

CASUALTIES AND DAMAGE:

Number of persons killed: 0
Injured: 0
Rescued unharmed: 0

Damage to buildings (type, number, degree of destruction): 2: one completely destroyed and another heavily damaged

Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of avalanches, etc.):

Attach photographs and/or sketches if possible.

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: Japan

Name and address of reporter: ..............................................................

LOCATION: (Name of district, nearest tow or village, mountain area, avalanche path)
Tanashu-machi, Kawanuma-gun, Fukushima-ken

Latitude: 37°30'N  Longitude: 139°44'E  Altitude: 750 m

DATE: 9 March 1975; Time: 10h00m = 02h00m (GMT)

DATA ON AVALANCHE:
Type (International classification): A1 B1 C2 D2 E2 F0 G1
Orientation: South

Dimensions:
Starting zone: Altitude: 750 m Width: 30 m Depth of fracture: 0.5 m-2 m
Avalanche path: Length: 50 m Width: 30 m Average slope: 30°
Deposit: Maximum depth: 3 m Volume: 4,500 m³

Causes:
Snow structure: .................................................................
Weather (snowfall, wind, temperature): Cloudy, no wind

Triggering mechanism (if known): .................................................................

CASUALTIES AND DAMAGE:
Number of persons killed: 1; injured: 0; rescued unharmed: 0

Damage to buildings (type, number, degree of destruction): None

Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of a slanches, etc.):
No avalanche before

Attach photographs and/or sketches if possible. Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: Japan

Name and address of reporter:

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)

Nakajima, Tsurugis-machi, Ishikawa-gun, Ishikawa-ken

Latitude: 36°28'N Longitude: 136°36'E Altitude: 150 m

DATE: 16 March 1974 Time: 17h05m = 08h05 (GMT)

DATA ON AVALANCHE:

Type (International classification): A1 B4 C1 D1 E2 F0 G2

Dimensions:

Starting zone: Altitude: 200 m Width: 10 m Depth of fracture: 

Avalanche path: Length: 150 m Width: 10 m Average slope: 45°

Deposit: Maximum depth: Volume: 2,000 m³

Causes

Snow structure: Snow depth: 1/4 cm

Weather (snowfall, wind, temperature):

Triggering mechanism (if known):

CASUALTIES AND DAMAGE:

Number of persons killed: 1; injured: 2; rescued unharmed: 0

Damage to buildings (type, number, degree of destruction): None

Other damage (forestry, communications, etc.): The motor car in which victims were riding was heavily destroyed

REMARKS (rescue work, former history of avalanches, etc.)

There is a protection forest for avalanches above the road, but no avalanche record before

Attach photographs and/or sketches if possible.

*Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: Japan

Name and address of reporter: ............................................................

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)
Mt. Nakuba, Nakuba-mura, Kita-asumi-gun, Nagano-ken

Latitude: 35°51'N  Longitude: 137°41'E  Altitude: 2,480 m

DATE: 18 March 1974  Time: 09h00m  = 17 March (GMT)

DATA ON AVALANCHE:
Type (International classification): A2 E1 C1 D2 E2 F1 G0

Dimensions:
Starting zone:  Altitude:  Width: Depth of fracture: 
Avalanche path: Length: 500-600 m Width: 300 m Average slope: 
Deposit: Maximum depth: Volume: 

Causes:
Snow structure:
Weather (snowfall, wind, temperature):

Triggering mechanism (if known):

CASUALTIES AND DAMAGE:
Number of persons killed: 5; injured: 0; rescued unharmed: 0

Damage to buildings (type, number, degree of destruction): None

Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of avalanches, etc.)

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: Japan

Name and address of reporter: 

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)
Mt. Ōwakudani, Yuzawa-shi, Akita-ken
Latitude: 30°10'N
Longitude: 140°30'E
Altitude: 120 m

DATE: 22 March 1974
Time: 10h00m = 01h00m (GMT)

DATA ON AVALANCHE:
Type (International classification): A2 E4 C2 D1 E2 F0 G2
Dimensions:
Starting zone: Altitude: 240 m Width: 20 m Depth of fracture: 1 m
Avalanche path: Length: 60 m Width: 20 m Average slope: 38°
Deposit: Maximum depth: 4 m Volume: 2,400 m³

Causes:
Snow structure: Granular snow through all layer
Weather (snowfall, wind, temperature): Cloudy, wind: 2 m/sec, temperature: -0.2°C

Triggering mechanism (if known): Climax avalanche

CASUALTIES AND DAMAGE:
Number of persons killed: 0; injured: 0; rescued unharmed: 0

Damage to buildings (type, number, degree of destruction): 2; completely destroyed and another heavily destroyed

Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of avalanches, etc.)
In view of avalanche threat, the people of eleven homes of the town were ordered to evacuate their houses

Attach photographs and/or sketches if possible. *Please use metric system

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The Director, Department of Environmental Sciences, Unesco, Place de Fontenoy, Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: Japan  
Winter 1973-1974  
Serial No.: 22

Location: (Name of district, nearest town or village, mountain area, avalanche path) 
Mt. Kashimayariga-take, Omachi-shi, Nagano-ken

Latitude: 36°35′N  
Longitude: 137°45′E  
Altitude: 2,400 m

Date: 23-24 March 1974  
Time: unknown  
(GMT)

Data on Avalanche:
Type (International classification): AO  
E4  
C0  
D2  
E0  
F0  
G0

Dimensions:
Starting zone: Altitude:  
Width:  
Depth of fracture:  
Avalanche path: Length:  
Width:  
Average slope:  
Deposit: Maximum depth:  
Volume:  

Causes:

Snow structure:  
Weather (snowfall, wind, temperature):  
Triggering mechanism (if known):  

Casualties and Damage:
Number of persons killed: 9  
injured: 2  
rescued unharmed: 0

Damage to buildings (type, number, degree of destruction): None

Other damage (forests, communications, etc.): None

Remarks (rescue work, former history of avalanches, etc.):  

Attach photographs and or sketches if possible.  

* Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,  
Department of Environmental Sciences,  
Unesco,  
Place de Fontenoy,  
Paris 7e (France)
COUNTRY: Japan  Winter 1973/1974  Serial No.: 23

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)
Mt. Ruine, Josankei, Sapporo-shi, Hokkaido
Latitude: 42°56'N  Longitude: 141°02'1E  Altitude: 1,130 m

DATE: 25 March 1974  Time: About 16.00 h = 07.00 h (GMT)

DATA ON AVALANCHE:
Type (International classification): A2 B1 C1 D2 E2 F0 G1
Orientation: South-east

Dimensions:
Starting zone: Altitude: 1,130 m  Width: 50 m  Depth of fracture: 0.4 m
Avalanche path: Length: 200 m  Width: 50 m  Average slope: 40°
Deposit: Maximum depth: 3 m  Volume:

Causes:
New snow on crust of snow cover

Weather (snowfall, wind, temperature): Clear, no wind

Triggering mechanism (if known): Accidental triggering by skiers

CASUALTIES AND DAMAGE:
Number of persons killed: 2  Injured: 0  Rescued unharmed: 0

Damage to buildings (type, number, degree of destruction): None

Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of avalanches, etc.):

Attach photographs and/or sketches if possible. * Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:
The Director, Department of Environmental Sciences, Unesco, Place de Fontenoy, Paris 7e (France)
Report on Destructive Avalanche

COUNTRY: Japan

Name and address of reporter:

LOCATION: Tadami-machi, Minamisaku-gun, Fukushima-ken
Latitude: 39°23' N
Longitude: 139°21' E
Altitude: 370 m

DATE: 26 March 1974
Time: 09h40m

DATA ON AVALANCHE:
Type (International classification): A1 E1 G2 D2 E2 F0 G2
Orientation: South-east

Dimensions:
Starting zone: Altitude: 370 m Width: 10 m Depth of fracture: 1 m
Avalanche path: Length: 60 m Width: 10 m Average slope: 45°
Deposit: Maximum depth: 5-6 m Volume: 3,000-3,500 m³

Causes:
Snow structure:
Weather (snowfall, wind, temperature): Cloudy, weak wind, temperature: +5-10°C

Triggering mechanism (if known):

CASUALTIES AND DAMAGE:
Number of persons killed: 1; injured: 0; rescued unharmed: 0
Damage to buildings (type, number, degree of destruction): None
Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of avalanches, etc.)
Avalanche occurred before the snow-shed was constructed there.

Attach photographs and/or sketches if possible. *Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)
UNIFIED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION.

Department of Environmental Sciences

Report on Destructive Avalanche

COUNTRY: Japan  Winter 1973/1974  Serial No.: 25

Name and address of reporter: 

LOCATION: (Name of district, nearest town or village, mountain area, avalanche path)
Takomatalia, Rigashi-maruse-mura, Ogachi-gun, Akita-ken

Latitude: 40°11'N  Longitude: 140°39'E  Altitude: 220 m

DATE: 1 April 1974; Time: 13h50m  = 04h50m (GMT)

DATA ON AVALANCHE:
Type (International classification): A2 B4 C2 D1 E2 F0 G2  Orientation: North-east

Dimensions:
Starting zone: Altitude: 300 m  Width: 100 m  Depth of fracture: 2 m
Avalanche path: Length: 300 m  Width: 100 m  Average slope: 38°
Deposit: Maximum depth: 5 m  Volume: 20,000 m³

Causes
Snow structure: Granular snow through all layer
Weather (snowfall, wind, temperature): Clear, wind: 1 m/sec, temperature: +5.3°C
Triggering mechanism (if known): Warm weather and rain falling from the day before

CASUALTIES AND DAMAGE:
Number of persons killed: 3  injured: 1  rescued unharmed: 0
Damage to buildings (type, number, degree of destruction): None
Other damage (forests, communications, etc.): None

REMARKS (rescue work, former history of avalanches, etc.)
Wood cutters while bringing down timbers were hit

Attach photographs and/or sketches if possible. *Please use metric system

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Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)

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Report on Destructive Avalanche

COUNTRY: Japan

LOCATION: Kurakotsu-sawa, Shimogomachi, Miramisuzan, Fukushima-ken
Latitude: 37°15'N Longitude: 139°68'E Altitude: 650 m

DATE: 8 April 1974, Time: 09h30m-11h30m = 09h30m-02h30m (GMT)

DATA ON AVALANCHE:
Type (International classification): A1 B1 C1 D2 E2 F0 G2
Orientation: East

Dimensions:
Starting zone: Altitude: 650 m Width: —— Depth of fracture: 1.0-1.5 m
Avalanche path: Length: 200 m Width: 150 m Average slope: 60°
Deposit: Maximum depth: 15 m Volume: 30,000-45,000 m³

Causation:
Snow structure: ——
Weather (snowfall, wind, temperature): Clear, weak wind

Triggering mechanism (if known): Snow cornice

CASUALTIES AND DAMAGE:
Number of persons killed: 2; injured: 0; rescued unharmed: 0

Damage to buildings (type, number, degree of destruction): None

Other damage (forests, communications, etc.): None

REMARKS (rescue work, forecasting history of avalanches, etc.):
Frequent avalanches at this site

Please use metric system

Note: This form should be completed as soon as possible after the event and, after checking by the national reporting centre, be sent, in duplicate, together with the corresponding annual avalanche report, to the following address:

The Director,
Department of Environmental Sciences,
Unesco,
Place de Fontenoy,
Paris 7e (France)