

Submitted by

Country: AUSTRIA

weather mod: Yes

project: HTP - NOE (Hail Test Project Lower Austria)

section: Hail suppression

section: Operational

Target: 500

Starting year: 1981

section: Governmental

section: Private

Funding: 130.000

Starting: May

Ending: September

Effective: 13

section: Aircraft

other: local C-Band- Radar

section: hygroscopic

section: convective

section: records

other: Hailpad data 1981-2000

one: Results of the hailpad data project NOE, 1981-2000

contact person: Johannes ECKHARTER

organization: Union for Culture Protection around Langenlois

address name: KSV (Kulturschutzverein für Langenlois und Umgebung)
Kronplatz 9,
A-3550 LANGENLOIS

contact person: Dr. Otto SVABIK

reporting organization: ZAMG, Austria

address name: ZAMG (Zentralanstalt für Meteorologie und Geodynamik),
Dep. of Climatology,
Hohe Warte 38, A-1190 Vienna, AUSTRIA

Submitted by

Country: AUSTRIA

Weather Mod: No

project: HTP-STK Hail Test Project Styria

section: Hail suppression

section: Operational

Target: 1800

Starting year: 1985 with aircrafts

section: Governmental

section: Private

Funding: 200,000

Starting: May

Ending: September

Effective: 26

section: Aircraft

section: Doppler radars

section: hygroscopic

section: convective

section: crop

other: Hail pads

one: Results of the 20 year running hailpad project "Styria", 1982-2001

contact person: Franz GRUBER

organization: Styrian Hail Suppression Company

address name: Steirische Hagelabwehrgenossenschaft
Feldgasse 259
A-8181 St.Ruprecht an der Raab

contact person: Dr. Otto SVABIK

reporting organization: ZAMG

address name: ZAMG (Zentralanstalt für Meteorologie und Geodynamik) Dep. of
Climatology,
Hohe Warte 38
A-1190 Vienna, AUSTRIA

Submitted by

Country: Bosnia and Herzegovina

Weather Mod: No

contact person: Federal Meteorological Institute

reporting organization: Zeljko Majstorovic

address name: Bardakcije 12, Sarajevo Bosnia and Herzegovina

Submitted by

Country: Bosnia and Herzegovina

weather mod: Yes

project: hail suppression

section: Hail suppression

section: Operational

Target: 7500

Starting year: 1975.

section: Governmental

Funding: 1 mil.

Starting: april

Ending: october

Effective: 180

section: Rockets

section: Doppler radars

section: glaciogenic

section: convective

section: crop

section: benefit

contact person: Rajko Popovic

organization: JODP,,PGZ RS,,

address name: K. Brigada bb
78400 Gradiska
Republic of Srpska
Bosnia and Herzegovina

Submitted by

Country: BOSNIA AND HERZEGOVINA

weather mod: Yes

project: HAIL SUPPRESSION

section: Hail suppression

section: Operational

Target: 7000

Starting year: 1975.

section: Governmental

Funding: 1.000.000

Starting: APRIL

Ending: OCTOBER

section: Rockets

section: Doppler radars

section: glaciogenic

section: convective

section: records

section: benefit

contact person: RAJKO POPOVIC

organization: JODP,,PROTIVGRADNA ZASTITA RS,, GRADISKA

address name: K. brigada bb
78400 Gradiska
Republika Srpska
Bosna i Hercegovina

contact person: RAJKO POPOVIC

reporting organization: JODP,,PROTIVGRADNA ZASTITA RS,, GRADISKA

address name: K. brigada bb
78400 Gradiska
Republika Srpska
Bosna i Hercegovina

Submitted by

Country: Bulgaria

weather mod: Yes

project: BG-1

section: Hail suppression

section: Operational

Target: 17 057 - 2005; 17 202 - 2006

Starting year: 1969

section: Governmental

Funding: 4 800 000 - 2005; 4 800 000 - 2006

Starting: may

Ending: october

Effective: 43 - 2005 ; 43 - 2006

section: Rockets

section: models

section: glaciogenic

section: convective

section: records

section: benefit

contact person: Ventzislav Tzenov

organization: Agency Hail Suppression

address name: 17 Hristo Botev bld
Sofia 1606
Bulgaria

contact person: Ventzislav Tzenov

reporting organization: Agency Hail Suppression

address name: 17 Hristo Botev bld
Sofia 1606
Bulgaria

Submitted by

Country: Meteorological Service of Canada

weather mod: Yes

project: Alberta Hail Suppression Project 2005

section: Hail suppression

section: Operational

Target: 26000 km2

Control: Lacombe to High River in Alberta

Starting year: 1996

section: Private

Funding: Unknown

Starting: June 2005

Ending: September 2005

Effective: 36 days

section: Aircraft

other: 3 aircraft

section: Doppler radars

section: glaciogenic

other: AgI

section: convective

section: records

section: crop

section: none

one: Krauss, T., 2005, Field Program FInal Report 2005

contact person: Weather Modification Inc.

organization: Dr. Terry W. Krauss

address name: 3802 20th Street N, Fargo, ND, USA, 58102
Phone 701-235-5500

PO Box 27177, Red Deer, Alberta, Canada, T4N 6X8
Phone: 403-342-5685

contact person: Stewart Cober

reporting organization: Environment Canada

address name: Cloud Physics and Severe Weather Research Section
4905 Dufferin Street
Toronto, Ontario, M3H 5T4

Submitted by

Country: Meteorological Service of Canada

weather mod: Yes

project: Alberta Hail Suppression Project 2006

section: Hail suppression

section: Operational

Target: 26000 km2

Control: Lacombe to High River in Alberta

Starting year: 1996

section: Private

Funding: Unknown

Starting: June 2006

Ending: September 2006

Effective: 39 days

section: Aircraft

other: 3 aircraft

section: Doppler radars

section: glaciogenic

other: AgI

section: convective

section: records

section: crop

section: none

one: Krauss, T., 2006, Field Program Final Report

contact person: Weather Modification Inc.

organization: James Sweeney

address name: 3802 20th Street N., Fargo, ND, USA, 58102
Phone 701-235-5500

contact person: Stewart Cober

reporting organization: Environment Canada

address name: Cloud Physics and Severe Weather Research Section
4905 Dufferin Street
Toronto, Ontario, Canada, M3H 5T4

Submitted by

Country: Germany

weather mod: Yes

project: Hagelabwehrforschung Rosenheim

section: Hail suppression

section: Research

section: Operational

Target: 4400

Starting year: 1975

section: Governmental

Starting: 04

Ending: 10

section: Aircraft

section: Doppler radars

section: satellites

section: Microwave

section: Wind

section: models

section: hygroscopic

section: convective

other: Documentation of hail fall

contact person: Vogl, Georg

organization: Landkreis Rosenheim

address name: Wittelsbacher Straße 53
D-83022 Rosenheim
Germany

contact person: Wullbrandt, Harry

reporting organization: Deutscher Wetterdienst

address name: Kaiserleistraße 29/35
D-63067 Offenbach
Germany

Submitted by

Country: Germany

weather mod: Yes

project: Hagelabwehr Landkreis Rems-Murr

section: Hail suppression

section: Operational

Target: 1000

Starting year: 1981

section: Governmental

section: Private

Funding: 120.000

Starting: 04

Ending: 10

Effective: 17

section: Aircraft

section: Doppler radars

section: satellites

section: hygroscopic

section: convective

other: Documentation of hail fall

contact person: Maier, Michael

organization: Landratsamt Rems-Murr Kreis

address name: PO Box 1419
D-71338 Waiblingen
Germany

contact person: Wullbrandt, Harry

reporting organization: Deutscher Wetterdienst

address name: Kaiserleistraße 29/35
D-63067 Offenbach
Germany

Submitted by

Country: Greece

weather mod: Yes

project: GNHSP Greek National Hail Suppression Program

section: Hail suppression

section: Operational

Target: 5180

Starting year: 1984

section: Governmental

Starting: April

Ending: September

Effective: 183

section: Aircraft

other: Hail sound canons and sound shock waves

section: satellites

section: models

section: glaciogenic

other: AgI, 4 gr/sec, at convective cells in the developping stage exceeding 35 dBZ and 5 km tops

section: convective

section: Randomized

section: records

section: crop

section: impact

section: benefit

one: Yes

contact person: Maria Christodoulou

organization: EL.G.A.

address name: EL.G.A., Meteorological Application Center
'Makedonia' Airport, 55103,
Thessaloniki, GREECE

contact person: George Farazoulis

reporting organization: EL.G.A.

address name: EL.G.A.
Mesogeion 45,11510,
Athens, GREECE

Submitted by

Country: GUYANA

Weather Mod: No

contact person: Bhaleka Seulall

reporting organization: Hydrometeorological Service, Guyana

address name: Hydrometeorological Service, Guyana
Ministry of Agriculture
18 Brickdam
Stabroek
Georgetown
Guyana
email: b.d.seulall@hydromet.gov.gy
Tel: 592 225 4247
Fax: 592 226 1460
Website: www.hydromet.gov.gy

Submitted by

Country: Iceland

Weather Mod: No

contact person: Magn?s J=sson

reporting organization: The Icelandic Met. Office

address name: Vedurstofa Islands
Bustadavegur 9
150 Reykjavik
Iceland

Submitted by

Country: JAPAN

weather mod: Yes

section: Precipitation enhancement

section: Research

Target: 500

Starting year: 1994

section: Governmental

Funding: \$300,000

section: Aircraft

section: Doppler radars

section: satellites

section: Microwave

section: Wind

section: models

section: Microphysics

section: glaciogenic

section: orographic

other: Numerical Simulation

section: benefit

contact person: Masataka MURAKAMI

organization: Meteorological Research Institute, Japan Meteorological Agency

address name: 1-1 Nagamine, Tsukuba, Ibaraki 305-0052 JAPAN

contact person: Jitsuko HASEGAWA

reporting organization: International Affairs Office, Japan Meteorological Agency

address name: 1-3-4 Ohtemachi, Chiyoda-ku, Tokyo 100-8122 JAPAN

Submitted by

Country: Jordan

Weather Mod: No

project: Rain Enhancement Project

section: Precipitation enhancement

section: Operational

Target: 50

section: Governmental

section: Ground

section: Aircraft

section: Doppler radars

section: glaciogenic

section: convective

section: layer

section: Randomized

contact person: Dr Ahmad Abu Obeid

organization: Jordan Meteorological Department

address name: Meteorological Department
P.O. Box 341011, Amman 11134, Jordan
Tel + 962 6 4892408 ext. 120
Fax + 962 6 4894409
Email: metra68@hotmail.com

contact person: Dr Ahmad Abu Obeid

reporting organization: Jordan Meteorological Department

address name: P.O. Box 341011, Amman 11134, Jordan
Tel + 962 6 4892408 ext. 120
Fax + 962 6 4894409
Email: metra68@hotmail.com

Submitted by

Country: South Korea

weather mod: Yes

project: Technical Developments of Weather Modification in Korea Peninsula

section: Precipitation enhancement

section: Fog dispersal

section: Research

Target: 1.6

Starting year: 2003

section: Governmental

Funding: 250000/yr

Starting: June

Ending: June

Effective: foggy days

section: Ground

section: satellites

section: Microwave

section: Wind

section: models

section: Microphysics

section: glaciogenic

section: hygroscopic

section: orographic

section: Randomized

section: benefit

one: K. H. Chang, B. C. Choi, Seong-Min Yoon and Kyungsik Kim, 2006:
Multifractal Measures on Small-World Networks. *Fractals*, 14, 119-123

Fax: Joo-Wan Cha, Ki-Ho Chang, Jin-Yim Jeong, Ha-Young Yang, Yo-Han Cho, Myoung
Joo Lee, Gyun Myeong Park, Jae Cheol Nam, 2005 : Microphysical cloud observation
and fog dissipation experiment at Daegwallyong site, Newsletter of METRI

Fax: Ki-Ho Chang, Jin-Yim Jung, Joo-Wan Cha, Kyun-Myung Park, Ha-Young Yang,
and Sung-Nam Oh, 2006: An Experimental Study for the Hygroscopic-particle Moving
Seeding Method to Dissipate Natural Advective Fog, *J. Korean Meteo. Soc.*,
submitted.

contact person: khchang@metri.re.kr

organization: Meteorogological Institute, KMA

address name: Meteoroglogical Institute, Korea Meteorological Adminstration,
Seoul 156-720, South Korea

contact person: chhwha@kma.go.kr

reporting organization: Korea Meteorological Administration

address name: Korea Meteorological Adminstration, Seoul 156-720, South Korea

Submitted by

Country: REPUBLIC OF MACEDONIA

weather mod: Yes

project: HAIL SUPPRESSION PROGRAM

section: Hail suppression

section: Operational

Target: 6 000

Starting year: 1971

section: Governmental

Funding: 170 000

Starting: APRIL

Ending: OCTOBER

Effective: 23 days with cloud seeding

section: Rockets

section: satellites

section: models

section: glaciogenic

section: convective

section: records

section: none

one: Annual Reports

Fax: Stor-case analyses

contact person: ALEKSANDAR KARANFILOVSKI Mr

organization: RADAR MONITORING AND WEATHER MODIFICATION DEPARTMENT

address name: ul. Skupi bb,
SKOPJE - 1000,
REPUBLIC OF MACEDONIA

contact person: Aleksandar Karanfilovski, Mr.

reporting organization: NATIONAL HYDROMETEOROLOGICAL SERVICE OF R. MACEDONIA

address name: ul. Skupi bb,
SKOPJE - 1000
REPUBLIC OF MACEDONIA

Submitted by

Country: Malaysia-1

weather mod: Yes

section: Precipitation enhancement

section: Operational

Target: whole country

Control: no

Starting year: 1997

section: Governmental

Starting: Mac 2005

Ending: Oct 2005

Effective: 100

section: Aircraft

section: hygroscopic

other: Sodium Chloride solution

section: convective

section: none

section: none

one: no

contact person: Director General

organization: Malaysian Meteorological Department , Ministry Of Science,
technology And Innovation

address name: Jalan Sultan, 46667 Petaling Jaya, selangor, Malaysia

contact person: Director General

reporting organization: Malaysian Meteorological Department , Ministry Of
Science, technology And Innovation

address name: Jalan Sultan, 46667 Petaling Jaya, selangor, Malaysia

Country: Malaysia-2

weather mod: Yes

project: Draught operation

section: Precipitation enhancement

other: Emergency

section: Operational

Target: Haze affected areas and catchment areas of dam

Starting year: Every year

section: Governmental

Starting: March 2005

Ending: October 2005

Effective: 100

section: Aircraft

section: Doppler radars

section: satellites

section: models

section: hygroscopic

other: Sodium Chloride solution

section: convective

section: records

section: none

one: -

contact person: Director Of Weather Modification Division

organization: Malaysian Meteorological Department

address name: Malaysian Meteorological Department
Ministry Of Science, Technology And Innovation, Jalan Sultan, 46667 Petaling
Jaya, Selangor, Malaysia

contact person: Director Of Weather Modification Division

reporting organization: Malaysian Meteorological Department

address name: Malaysian Meteorological Department
Ministry Of Science, Technology And Innovation, Jalan Sultan, 46667 Petaling
Jaya, Selangor, Malaysia

Submitted by

Country: Mongolia

weather mod: Yes

project: BOROO

section: Precipitation enhancement

section: Operational

Target: 300 000

Control: 120 000

Starting year: 2006

section: Governmental

Funding: 25 000

Starting: June

Ending: July

Effective: 10

section: Ground

section: Rockets

section: Doppler radars

section: hygroscopic

section: convective

section: records

section: crop

section: impact

one: Technical papers

contact person: National Administration of Meteorology Hydrology and
Environmental Monitoring of Mongolia

address name: Juulchnii gudamj 5,Chingeltei district,Ulaanbaatar,Mongolia
fax:976-11-326592

contact person: Chuluunbat Davaasambuu

reporting organization: Weather modification center of Mongolia

address name: Juulchnii gudamj5, Chingeltei district,Ulaanbaatar,Mongolia
e-mail spolechuka@yahoo.com
fax:976-11-326611

Submitted by

Country: Morocco-Direction de la Météorologie Nationale

weather mod: Yes

project: Al-Ghait Program

section: Precipitation enhancement

section: Research

section: Operational

Target: 14300 (outside target by aircraft)

Control: used in the past before 2005

Starting year: 1984

section: Governmental

Starting: 1st November

Ending: Last April

Effective: 47 days

section: Ground

section: Aircraft

section: Doppler radars

section: satellites

section: Microwave

section: Wind

section: models

section: Microphysics

other: Spectropluviometer

section: glaciogenic

section: hygroscopic

section: convective

section: orographic

section: layer

section: records

other: Case studies

section: impact

section: benefit

one: Cooperation between Morocco-USAID

Fax: Al-Ghait Brochure

contact person: Mr. Grana LAIDI

organization: DMN/Al-Ghait Program

address name: Face Prefecture Hay Hassani, B.P. 8106, Casa Oasis, Morocco

contact person: Mr. Grana LAIDI

reporting organization: DMN/Al-Ghait Program

address name: Face Prefecture Hay Hassani, B.P. 8106, Casa Oasis, Morocco

Submitted by

Country: Nigeria

Weather Mod: No

project: Future Enhancement for crew

other: Weather study

section: Research

Target: 20,000

Starting year: 2007

section: Private

Funding: 2000

Starting: March(31)

Ending: December

Effective: Saturdays and Sundays

section: Ground

section: Microphysics

section: hygroscopic

section: layer

section: Randomized

section: impact

contact person: Olatunde Agbaje Faliud

organization: Weather Study As none Governmental

address name: 34 Herbert macaulay Street Ebute Metta East Lagos Mainland Lagos
State Nigeria
Zip code:23401
Tel:2348065246060

contact person: Olatunde Agbaje

reporting organization: Weather Study As none Governmental

address name: 34 Herbert macaulay Street Ebute Metta East Lagos Mainland Lagos
State Nigeria
Zip code:23401
Tel:2348065246060

Submitted by

firstname: Norway

Weather Mod: No

Submitted by

Country: Portugal

Weather Mod: No

contact person: Ana Isabel Ferreira

reporting organization: Instituto de Meteorologia

address name: Rua C ao aeroporto de Lisboa
1749-077 Lisboa
Portugal

Submitted by

Country: Romania - Report for 2006

weather mod: Yes

project: Pilot Unit for hail suppression in Prahova county

section: Hail suppression

section: Operational

Target: 800

Control: 1600

Starting year: 2006 - operational

section: Governmental

Funding: \$ 662,000 USD

Starting: June

Ending: September

Effective: 26

section: Rockets

section: Doppler radars

section: models

section: hygroscopic

other: Silver Iodide

section: convective

section: crop

section: benefit

contact person: Dr. Eng. Gheorghe CAUNEI - FLORESCU

organization: Ministry of Agriculture and Rural Development - Hail suppression
Direction

address name: Bd. Carol I, no. 24, sector 3, Bucharest, tf/fax +40 21 3072325
tf. +40 21 3072410, Romania

contact person: Dr. Ion SANDU, Director General

reporting organization: National Meteorological Administration

address name: Sos. Bucuresti - Ploiesti, no. 97, 013686, sector 1, Bucharest,
Romania

Submitted by

Country: Russian Federation

weather mod: Yes

project: National WM activity

section: Precipitation enhancement

section: Hail suppression

section: Fog dispersal

other: Precipitation redistribution; Protection from Snow avalanches;

section: Research

section: Operational

Target: 22 500 (Hail suppression); 90 000 (Precipitatio enhancement);n

Control: 12 000 (Hail suppression)

Starting year: 1960 (Hail suppression); 1986 (Precip, Enhanc,))h

section: Governmental

Funding: 10 000 000 USD per year

Starting: April

Ending: October

Effective: 40 (Hail); 32 (Precip.)

section: Aircraft

section: Rockets

section: Doppler radars

section: satellites

section: Microwave

section: Wind

section: models

section: Microphysics

section: glaciogenic

section: hygroscopic

section: convective

section: orographic

section: layer

section: records

section: crop

other: Cross-correlation with target area

section: impact

section: benefit

contact person: Dr Valery Tapaskhanov

organization: High Mountain Geophysical Institute

address name: 2, Lenin Avenue
360030, Nalchik
Russian Federation

contact person: Dr Valery Stasenکو

reporting organization: Federal Service for Hydrometeorology and Environmental
Monitoring

address name: 12, Novovagan'kovsky Lane

123395, Moscow
Russian Federation

Submitted by

Country: SOUTH AFRICA

Weather Mod: No

contact person: Dr Deon E Terblanche

reporting organization: South African Weather Service

address name: Private Bag X097
Pretoria
0001

Submitted by

Country: Switzerland

Weather Mod: No

contact person: alex.rubli@meteoswiss.ch

reporting organization: MeteoSwiss

address name: KrShbnhlstrasse 58
CH-8044 Znrch

Submitted by

Country: Syria

weather mod: Yes

project: Syrian Rain Enhancement Project

section: Precipitation enhancement

section: Operational

Target: 150.000

Control: Floating

section: Governmental

Funding: 700.000

Starting: October

Ending: May

Effective: 40 days

section: Aircraft

section: satellites

section: Wind

section: models

other: Radar MRL-5

section: glaciogenic

section: hygroscopic

section: convective

section: orographic

section: records

section: impact

section: benefit

one: Annual Report

contact person: Dr. Ali Abbas

organization: Directorate

address name: Rain Enhancement Project -Ministry of Agriculture and Agrarian
Reform- Damascus -Syria

address name: Rain Enhancement Project -Ministry of Agriculture and Agrarian
Reform- Damascus -Syria

Submitted by

Country: TRINIDAD AND TOBAGO

Weather Mod: No

project: ----

Submitted by

Country: Uzbekistan

weather mod: Yes

project: Hail-protection measures for the clouds dispersal

section: Precipitation redistribution

section: Hail suppression

other: Clouds dispersal

section: Research

section: Operational

Target: 7400 km²-2005 year, 6524km²-2006 year

Control: No

Starting year: from 1969 - beginning of hail suppression activities, from 1994 - beginning of activities on precipitation redistribution and dispersal (by the decision of Government). Project funding - state budget

section: Governmental

Funding: 2 million USD

Starting: 19.03 - 21.03; 01.04 --31.08 (every year)

Ending: 30.08 - 31.08 (by the decision of the Government)

Effective: 2005 - 53 days, 2006 - 5 days

section: Ground

section: Aircraft

section: Rockets

section: Doppler radars

section: satellites

section: Microphysics

other: Meteorological models, radioradar "Meteor"

section: hygroscopic

other: crystallic

section: convective

section: orographic

section: layer

section: crop

section: impact

section: benefit

one: A.D. Juraev, Kh.A. Imamdjanov, B.Sh.Kadyrov. Use of radar data in calculation of economical effectiveness of hail suppression activities.//SANIGMI. - 1988. - 126 (207). - p. 83-86.

Fax: Kh. A. Imamdjanov - Supercell hail suppression process in the north of Ferghana valley.// SANIGMI - 1990. - Issue 110 (191). - p.74-77. Kh.A. Imamdjanov. V.A. Kamalov. Weather modification in Uzbekistan.//T.-2001. - 110 p.

Fax: Kh.A. Imamdjanov, V.P. Kurbatkin. Modern problems of active impact on hydrometeorological processes.// News of Geographical Society. 1999. v.20. - p.20-24.

contact person: Mr. Islamkhodja Usmanov

organization: Ministry of Defence of the Republic of Uzbekistan, Service on Provision of Administration of Hydrometeorological Processes Modification - cloudsdispersal, hail suppression activities

address name: 85, K.Makhsumov str., Tashkent, 700052, Republic of Uzbekistan

contact person: Mr. Khasan Imamdjanov

reporting organization: The Centre of Hydrometeorological Service at Cabinet of
Ministers of the Republic of Uzbekistan (Uzhydromet)

address name: 72, K.Makhsumov str., Tashkent, 700052, Republic of Uzbekistan
