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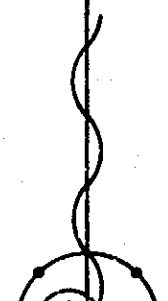
Catalogue of Satellite Photography of the Active Volcanoes of the World

by

Grant Heiken



los alamos
scientific laboratory
of the University of California
LOS ALAMOS, NEW MEXICO 87545

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CATALOGUE OF SATELLITE PHOTOGRAPHY OF THE ACTIVE VOLCANOES OF THE WORLD

by

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ABSTRACT

This is a catalogue of active volcanoes as viewed from Earth-orbiting satellites. The listing was prepared of photographs, which have been screened for quality, selected from the earth resources technology satellite (ERTS) and Skylab, Apollo and Gemini spacecraft. At present, there is photography of nearly every active volcano in the world; the photographs are particularly useful for regional studies of volcanic fields.

CATALOGUE OF SATELLITE PHOTOGRAPHY OF THE ACTIVE VOLCANOES OF THE WORLD

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I. INTRODUCTION

Satellite photography has proven to be useful in volcanology for purposes of geologic mapping and observation of eruptions. With an ever increasing number of earth resources and weather satellites being placed into earth orbit, there is a possibility that continual monitoring of volcanic eruptions may be possible within the next few decades. At present, there is photography of nearly every volcano in the world. This imagery is particularly useful for the regional study of volcanic fields or reconnaissance mapping of inaccessible areas.

This catalogue is of photographs, which have been screened for quality, selected from the earth resources technology satellite (ERTS, recently renamed LANDSAT), Skylab imagery systems and handheld photography from Gemini and Apollo missions. All of the photography and imagery, collected by the National Aeronautics and Space Administration (NASA), is within the public domain; anyone may purchase the imagery listed here.

II. ANNOTATION AND FORMAT

The catalogue is arranged geographically. The descriptions include the image number, comments on quality of the image and the type of film.

A. ERTS (Landsat)

The ERTS-1 Spacecraft was launched on July 23, 1972. During the first seven months of operation, scenes of 75 percent of the world land areas were acquired. The ERTS-1 spacecraft was renamed Landsat-1 and the Landsat-2 was launched on January 22, 1975. Like its meteorological predecessors it was placed into a Sun-synchronous orbit. This orbit is such that the spacecraft passes over each point of the earth at the same local time each day and the ground tracks repeat every 18 days. The Landsat spacecraft have two imagery sensors, the RBV (return beam vidicon) and the MSS (multispectral scanner). Most of the imagery is from the MSSs; the RBVs were turned off due to electrical problems (David Pitts, NASA-Johnson Space Center, personal communication, July 1975). ERTS images cover an area approximately 185 x 185 km. The resolution for the MSS is a function of contrast and was found to vary from 60 m for high contrast to greater than 100 m for low contrast targets.

The bands from the RBV include the following.

Spectral Bands	Wavelength (μm)
1	0.475-0.575
2	0.580-0.680
3	0.690-0.830

The bands from the MSS include

Spectral Bands	Wavelength (μm)	Color
4	0.5-0.6	green
5	0.6-0.7	red (dark)
6	0.7-0.8	infrared
7	0.8-1.1	infrared

The most common bands used for geologic purposes are MSS-5 and -6. All bands are available as black and white images or combined as false-color composites at a very reasonable price. Magnetic tape is available at considerable cost, for each image, for computer image processing.

ERTS photograph numbers (observation identification) begin with a four-digit number referring to the days since launch and satellite number of the spacecraft, a five-digit number referring to the time of day, and a single-digit number referring to the spectral band. An example of an ERTS identification number would be 1210-15503-6. It should be used when ordering an image.

Black and white transparencies of each band are available with image sizes of 5.58 cm (2.2 in.) (film positive or negative), 18.54 cm (7.3 in.) (film positive, negative, or paper print) and as 37-cm (14.6-in.) or 74-cm (29.2-in.) paper prints. I have found that 18.54-cm x 18.54-cm film negatives are the most versatile form of imagery for geologic purposes. If you have access to a photographic laboratory, you are free to make prints of any size or contrast. Prints of excellent quality are available if you have no means of printing your own photographs.

False-color composites are available as 18.54-cm x 18.4-cm positive transparencies and paper prints and as 74-cm x 74-cm paper prints.

B. Apollo Missions

A number of handheld 35-mm and 70-mm photographs were taken from earth orbit by Apollo crews. Photograph numbers consist of a mission prefix and number. An example of Apollo 9 photography would be: AS9-19-3019.

C. Gemini Missions

Some photographs were taken of the earth's surface by Gemini crews. The photograph numbers have an "S" prefix, an example being S-65-63150.

D. Skylab

Among the experiments carried out in the first manned earth-orbiting laboratory were several imagery systems in addition to handheld 70-mm and 35-mm cameras. The Skylab sensors include the following.

1. S-190A - Multispectral Camera with six 15.24 cm lenses and 70 mm film format. All shutters operate simultaneously to provide individual images of the same scene in different spectral bands. The field of view is 21.2° with a surface coverage of 162 x 162 km.

Station	Band Width(μm)	Spectrum Range	Film
1	0.7-0.8	infrared	B&W IR-EK2424
2	0.8-0.9	infrared	B&W IR-EK2424
3	0.5-0.88	green,red,	IR-127
4	0.4-0.7	blue,green, red	Color-S0356
5	0.6-0.7	red	B&W Pan X S0022
6	0.5-0.6	green	B&W Pan X S0022

2. S-190B - Earth Terrain Camera with one 45.7-cm focal length lens and 12.7-cm film format. The surface coverage is 190 x 190 km. This system generally duplicates a portion of the imagery from the 190A system.

Band Width(μm)	Spectrum Range	Film
0.4-0.7	blue,green,red	Color S0242
0.5-0.7	green,red	B&W ED3414
0.5-0.88	green,red,IR	Color IR-EK3443

Skylab photography is designated by an "SL" prefix. The first number (for example, SL-4-) designates the particular mission. An example of this would be SL-4-8004.

III. HOW TO ORDER IMAGERY

All NASA imagery such as that collected by ERTS, Skylab, Gemini, and Apollo may be purchased at the following location.

EROS Data Center
Sioux Falls, South Dakota
57198 (U.S.A.)

Some of this imagery for the Southwestern United States and collection of 35-mm transparencies are available at

The Technology Application Center
University of New Mexico
Code 3
Albuquerque, NM 87106 (U.S.A.).

Many of the world's volcanoes are not in this listing (Appendix) due to nearly constant cloud cover. If what you need is not here, please contact user services at the EROS Data Center. As spacecraft continue to collect data, your area of interest may be imaged eventually. If you send the latitude and longitude of the area to the EROS Data Center, with a request for an updated listing, they will send you the most recent computer listing of images for that area.

IV. ACKNOWLEDGMENTS

This compilation was made both at the NASA-Johnson Space Center, Houston, Texas, and at the Los Alamos Scientific Laboratory, Los Alamos, New Mexico. I wish to thank the photographic laboratories at both places for processing all of the prints used for evaluation of image quality.

APPENDIX

CATALOGUE LISTING

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
INDONESIA		
Sumatra		
Belirang-Balak Caldera	ERTS 1108-02433	
	ERTS 1325-02484	
	ERTS 1054-02425	
Bukit Daun	ERTS 1325-02984	
Bukit Lumut Balai	ERTS 1108-02433	
	ERTS 1451-02465	good
Bur ni Geureudong	ERTS 1114-03153	
Bur ni Telong	ERTS 1114-03153	
Dempo	ERTS 1451-02465	
	ERTS 1325-02491	best
Gajolestan (Solfatara field)	ERTS 1168-03151	cloudy
	ERTS 1114-03153	
Hulubelo Caldera	ERTS 1054-02431	
	ERTS 1449-02355	
Kaba	ERTS 1451-02465	
	ERTS 1325-02491	good
	ERTS 1325-02484	good
Kerentji	ERTS 1057-02591	
Krakatau, Sunda Straits	ERTS 1449-02355	
Kunjit	ERTS 1326-02543	cloudy
Marga Bajur, (Solfatara field)	ERTS 1108-02433	
Merapi	ERTS 1094-03050	cloudy
Pematang Batu, Sumatra	ERTS 1054-02425	
Radjabassa	ERTS 1449-02355	
Sorikmarapi	ERTS 1094-03050	cloudy
	ERTS1418-03032	cloudy
Sumbing	ERTS 1326-02543	cloudy
Talakmau	ERTS 1094-03050	cloudy

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
Talang	ERTS 1057-02591	
Tandikat	ERTS 1094-03050	cloudy
Java		
Ardjuno-Welirang	ERTS 1048-02091	
	ERTS 1083-02034	
	ERTS 1083-0241	
	ERTS 1066-02091	
Bromo	ERTS 1083-02034	
Butak Petarangan	ERTS 1049-02150	
	ERTS 1067-02145	good, clear imagery of all of central Java. 70-mm pos.
	ERTS 1103-02151	
Dieng	ERTS 1032-02204	
Drang	ERTS 1067-02145	
	ERTS 1049-02150	
Galungungg	ERTS 1105-02271	
Gedeh	ERTS 1106-02323	
	ERTS 1070-02321	
	ERTS 1105-02271	
Guntur	ERTS 1105-02271	
Ijang Argapura	ERTS 1083-02034	
	ERTS 1083-02041	
Karang	ERTS 1106-02323	
	ERTS 1070-02321	
Kiaraberes Gagak (Solfatara field)	ERTS 1070-02321	
Lamongan	ERTS 1083-02034	
	ERTS 1083-02041	
Kelud	ERTS 1048-02091	
	ERTS 1083-02041	
	ERTS 1066-02091	
Lawu	ERTS 1049-02150	
	ERTS 1103-02151	
	ERTS 1009-02150	
	ERTS 1048-02091	
	ERTS 1066-02091	
Merapi	ERTS 1049-02150	
	ERTS 1067-02145	
	ERTS 1028-01581	
	ERTS 1103-02151	
	ERTS 1099-02150	
Merbabu	ERTS 1049-02150	
	ERTS 1067-02145	
	ERTS 1103-02151	
	ERTS 1049-02150	
Papandajan	ERTS 1105-02271	
Patuha	ERTS 1105-02271	

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
Porbakti		
(Solfatara field)	ERTS 1070-02321	
Pulosari	ERTS 1106-02323	
	ERTS 1070-02321	
Raung	ERTS 1083-02041	
	ERTS 1028-01581	
	ERTS 1083-02034	
Salak	ERTS 1070-02321	
Semeru	ERTS 1083-02041	
Slamet	ERTS 1032-02204	
Sumbing	ERTS 1049-02150	
	ERTS 1067-02145	
	ERTS 1103-02151	
	ERTS 1049-02150	
Sundoro	ERTS 1049-02150	
	ERTS 1067-02145	
	ERTS 1103-02151	
	ERTS 1032-02204	
Tangkuban Prahu	ERTS 1105-02271	
Telaga Bodegas	ERTS 1105-02271	
Tjerimai	ERTS 1105-02271	
Ungaran	ERTS 1049-02150	
	ERTS 1067-02143	
	ERTS 1049-02150	
Wajang Windu	ERTS 1105-02271	
Wilis	ERTS 1048-02091	
	ERTS 1066-02091	
Flores Island		
Amburombu	SL 3-25-154	B&W, S190A excellent
	SL 4-58-085-086	excellent
	ERTS 1059-01293	
Egon	SL 3-116-2042	70-mm color - small scale
	SL 3-120-2297	35-mm color oblique
	ERTS 1022-01233	
	ERTS -1059-01293	
Ija	SL 3-25-155	B&W, S190A excellent
Ili Boleng	ERTS 1022-01233	
Ili Labalaken	ERTS 1022-01233	
Ili Muda	SL 3-120-2297	color 35-mm oblique
	ERTS 1022-01233	
Ili Werung	ERTS 1022-01233	
Inie Laka	SL 3-25-154	B&W, S190A, vert.
	SL 4-58-085 to-086	color, good
	ERTS 1059-01293	

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
Ineri	SL 3-25-154	B&W, S190A excellent
	SL 3-116-2042	70-mm color, small scale
	SL 4-58-085 to -086	color, excellent
	ERTS 1059-01293	
Keli Mutu	SL 3-25-155	B&W, 190A, vert
	ERTS 1059-01293	
Leroboleng	ERTS 1022-01233	
Lewotolo	ERTS 1022-01233	
Lobetobi Lakilaki	SL 3-120-2297	35-mm color oblique
	ERTS 1022-01233	
Lobetobi Perampuan	SL 3-120-2297	35-mm color oblique
	ERTS 1022-01233	
Ndetu Napu	SL 3-25-155	B&W, 190A, vert., clear
	SL 4-58-085 to -086	color, excellent
	ERTS 1059-01293	
Paluweh	SL 3-116-2042	70-mm color, small scale
Potjo Leak Caldera	SL 3-25-154	B&W, S190A, excellent
Pui	SL 3-116-2042	70-mm color, small scale
	SL 3-25-155	B&W, S190A, excellent
	ERTS 1059-01293	
Riang Kotang	ERTS 1022-01233	
Sangeang Api	ERTS 1097-01413	
	ERTS 1025-01410	
Sirung	ERTS 1021-01175	
	ERTS 1111-01185	
Sukaria Caldera	SL 3-25-155	B&W, S190A, vert., cloudless
	SL 4-58-085 to -086	color, excellent
Tambora	ERTS 1025-01410	
Wai Sano	SL 3-116-2042	small scale, 70-mm color
	SL 3-25-154	B&W, 190A
	SL 4-58-085 to -086	color, excellent
Miscellaneous Indonesia		
Agung (Bali)	ERTS 1081-01524	
Ambang, Celebes	ERTS 1113-01272	
Api Siau, Sangihe Archipelago	ERTS 1004-01205	
Awu, Sangihe Archipelago	ERTS 1148-01205	
	ERTS 1004-01205	
Banua Wuhu, Sangihe Archipelago	ERTS 1004-01205	
Batur Caldera (Bali)	ERTS 1081-01524	
	ERTS 1028-01581	

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
Damar, Banda Sea	ERTS 1072-01002	
Dukano, Halmahera	ERTS 1147-01155	
Gamkanora, Halmahera	ERTS 1147-01155	
Gunung Api, Banda Sea	ERTS 1054-01000	
Ibu, Halmahera	ERTS 1147-01155	
Kawah Idjen	ERTS 1028-01581	
	ERTS 1100-01582	
	ERTS 1083-02034	
	ERTS 1083-02041	
Klabat, Celebes	ERTS 1004-01211	
Lokon-Empung, Celebes	ERTS 1113-01272	
	ERTS 1004-01211	
Motir, Halmahera	ERTS 1147-01155	
	ERTS 1075-01154	
Mahawu, Celebes	ERTS 1004-01211	
Makian, Halmahera	ERTS 1092-01101	
Malupang Warirang, Halmahera	ERTS 1147-01155	
Manuk, Banda Sea	ERTS 1053-00541	
	ERTS 1108-01004	
Marga Bajar, Sumatra (Solfatara field)	ERTS 1054-02425	
Nila, Banda Sea	ERTS 1072-01002	
	ERTS 1108-01004	
Pematang Batu, Sumatra	ERTS 1054-02425	
Rindjani (Segara Anak Caldera)	ERTS 1081-01524	
Ruang, Sangihe Archipelago	ERTS 1004-01205	
Sekinjau Banjur, Sumatra (Solfatara field)	ERTS 1054-02425	
Sempu, Celebes	ERTS 1113-01272	
Serua, Banda Sea	ERTS 1108-01004	
Soputan, Celebes	ERTS 1113-01272	
	ERTS 1004-01211	
Teon, Banda Sea	ERTS 1072-01002	
Ternate, Halmahera	ERTS 1147-01155	
	ERTS 1075-01154	
Todoko, Halmahera	ERTS 1147-01155	
Umsini, New Guinea	ERTS 1088-00474	
Una Una, N. Celebes	ERTS 1096-01331	
SOUTH PACIFIC		
Melanesia		
Goropu, Papua	ERTS-2035-23300	
Mt. Lamington, Papua	ERTS 2035-23293	

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
Langila, New Britain	ERTS 1040-23452	
	ERTS 1022-23453	
	ERTS 1022-23450	
Long Island, New Guinea	ERTS 1905-23514	
Manam, off of the coast of New Guinea	ERTS 1114-23571	partly cloudy
Musa River Thermal Area, Papua	ERTS 1040-23461	
Narage, Territory of New Britain	ERTS 1040-23450	
	ERTS 1022-23450	
Talo, New Britain	ERTS 1040-23452	
	ERTS 1022-23453	
Mt. Victory, New Guinea	ERTS 2035-23293	
New Zealand		
Mt. Egmont	SL 3-117-2076	vertical, 35-mm color
	SL 3-117-2077	
	SL 3-115-1804	70-mm color excellent
Ngauruhoe	ERTS 1518-21232	cloudy
Rotorua	ERTS 1536-21223	
Tarawera	ERTS 1518-21232	cloudy
Tongariro	ERTS 1518-21232	cloudy
White Island	ERTS 1536-21223	
PHILIPPINES		
Babuyan Claro	ERTS 1333-01450	
Balut	ERTS 1149-01261	
Banahao, Luzon	ERTS 1153-01463	
Biliran, Negros Island	ERTS 1025-01350	
Buiusan, Luzon	ERTS 1043-01344	
Cabalian, Leyte	ERTS 1168-01302	
Cagua	ERTS 1333-01450	
Calayo, Mindanao	ERTS 1186-01305	
	ERTS 1168-01304	
Camiguin de Babuyanes	ERTS 1333-01450	
Canlaon, Negros Island	ERTS 1187-01361	
Catarman (Mindanao)	ERTS 1186-01305	
	ERTS 1168-01304	
Didicas	ERTS 1333-01450	
Jalajala, Luzon	ERTS 1153-01463	
Jolo	ERTS 1170-01430	
Latukan	ERTS 1168-01311	
Makaturing	ERTS 1168-01311	
Mandalaga, Negros Island (Solfatara field)	ERTS 1187-01361	
Maquiling, Luzon	ERTS 1153-01463	
Matutun	ERTS 1149-01261	

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
Mayon, Luzon	ERTS 1043-01344	partly cloduy
Pocdol Mountains, Luzon	ERTS 1043-01344	
Silay (Solfatara field)	ERTS 1187-01361	
Smith volcano	ERTS 1333-01450	
Taal, Luzon	ERTS 1153-01463	
JAPAN		
Izu-Mariana Arc and Ryuku Islands		
Almagan, Mariana Islands	ERTS 1208-00082	
Guguan, Mariana Islands	ERTS 1208-00082	
Iwo-zima, Mariana Islands	ERTS 2012-00242	
Kutino erabu-zima, Ryuku Islands	ERTS 1672-01174	
Nakano-zima, Ryuku Islands	ERTS 1672-01174	
Okinawa-Tori-Shima, Ryuku Islands	ERTS 1097-01310	
O-sima, Izu-Mariana Arc	ERTS 1126-00491	
Mt. Pagan, Mariana Islands	ERTS 1208-00082	
Suwanosi-zima, Ryuku Islands	ERTS 1672-01174	
Tokara-Iwo-zima, Ryuku Islands	ERTS 1672-01174	
Tori-zima, Izu-Marina Arc	SL 4-196-7369 to 7370	color, 35-mm, vertical
Kyushu		
Aso	SL 4-139-3941 to 3942	color, 70-mm, eruption
	SL 4-139-3971 to 3972	color, 70-mm
	SL 4-064-0206 to 0208	color, stereopairs, S190, excellent
	ERTS 1132-01240	excellent
Kaimon	SL 4-139-3941	color, 70-mm
	SL 4-139-3942	color, 70-mm
	ERTS 1132-01242	
	SL 4-139-3971	
	SL 4-139-3972	
Kirisima	ERTS 1204-01243	excellent
	SL 4-139-3941	color, 70-mm
	SL 4-139-3942	color, 70-mm
	ERTS 1132-01242	excellent
	SL 4-139-3971	
	SL 4-139-3972	
	SL 4-064-0205 to 0207	color, stereopairs, S190, excellent
Kuzyu	SL 4-139-3941	color, 70-mm
	SL 4-139-3942	color, 70-mm
	ERTS 1023-01172	

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
Sakurazima	ERTS 1204-01243	
	SL 4-139-3941	color 70-mm
	SL 4 139-3942	color, 70-mm
	SL 4-139-3971	color, 70-mm
	SL 4-139-3972	color, 70-mm
	ERTS 1132-01242	eruption clouds
	SL 2-6-539	eruption clouds - 6/9/73 color
	SL 4-196-7337 to 7340	eruption, 2/1/74, stereo
	SL 4-193-7164	eruption, 12/1/73 0155 GMT single
	SL 4-193-7165	eruption 12/1/73 0155 GMT single, blurred
	SL 4-209-8202	35-mm, oblique
	SL 4-64-205 to 206	color, stereopair, S 190, excellent
	ERTS 1078-01234	
Torumi	SL 4-139-3942	color, 70-mm
	ERTS 1023-01172	
Unzen	SL 4-139-3941	color, 70-mm
	SL 4-139-3942	color, 70-mm
	SL 4-139-3971	
	SL 4-139-3972	
	ERTS 1132-01240	
	ERTS 1078-01232	
Honshu		
Adatara	ERTS 1037-00531	
	ERTS 1162-00480	
Akagi	ERTS 1181-00541	
	ERTS 1109-00535	
	ERTS 1109-00542	
Akita-yake-yama	ERTS 1235-00533	
Asama	ERTS 1181-00541	
	ERTS 1109-00542	excellent
	ERTS 1145-00542	
	ERTS 1074-00592	
	ERTS 1092-00595	
Azuma	ERTS 1037-00531	
	ERTS 1162-00480	
Bandai	ERTS 1037-00531	
	ERTS 1162-00480	
Hakone	ERTS 1109-00542	
	ERTS 1126-00491	
	ERTS 1145-00542	
Haku-san	ERTS 1074-00592	
Hatimantai	ERTS 1235-00533	

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
Huzi (Fuji)	ERTS 1109-00542	
	ERTS 1145-00542	
Iwaki	ERTS 1235-00533	
Kurikoma	ERTS 1090-00473	
Kusatu-Sirane	ERTS 1181-00541	
	ERTS 1109-00535	
	ERTS 1109-00542	
	ERTS 1074-00592	
Midagahara	ERTS 1074-00592	
Narugo	ERTS 1090-00473	
Nikko-Sirane	ERTS 1181-00541	
	ERTS 1037-00531	
Norikura	ERTS 1074-00592	
Omura-yama	ERTS 1109-00542	
	ERTS 1126-00491	
On-take	ERTS 1074-00592	
Osore-yama	ERTS 1037-00520	
Tazawa-ko (caldera)	ERTS 1235-00533	
Towada-ko (caldera)	ERTS 1235-00533	
Zao	ERTS 1090-00473	
Hokkaido		
Atsonupari (Kuttyaro Caldera)	ERTS 1197-00405	
Daisetu	ERTS 1126-00464	cloudy
Huppusi	ERTS 1197-00405	
Komagatake	ERTS 1037-00520	
	ERTS 1109-00524	
	ERTS 1037-00520	
Masyu Caldera	ERTS 1197-00405	
O-Akan and Me-Akan (Akan Caldera)	ERTS 1197-00405	
Siretoko-Iwo-san	ERTS 1088-00342	
	ERTS 1197-00403	
	ERTS 1196-00351	
Torumai (S and E of Sikotu Caldera)	ERTS 1037-00520	
	ERTS 1037-00513	
Tokati	ERTS 1126-00464	
Usu - Toya Caldera	ERTS 1037-00520	
	ERTS 1037-00513	
KAMCHATKA-KURILES		
Alaid	ERTS 1047-00031	
	ERTS 1047-00034	
Atsonupuri V.	SL 2-5-413	70-mm, vert. color
	ERTS 1177-00283	
	ERTS 1196-00344	
Avachinsky	ERTS 1189-23574	
Baransky	ERTS 1177-00283	

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
Berg V.	SL 2-5-413	color, 70-mm, vert.
Bezymianny	ERTS 1477-23542	
Berutarube V.	SL 2-5-413	70-mm, vert., color
	ERTS 1177-00283	
	ERTS 1088-00342	
	ERTS 1196-00344	
Burliastchy	ERTS 1189-23571	
Chikurachki	ERTS 1047-0034	
Chirip V.	SL 2-5-413	70-mm, color, vert.
	ERTS 1177-00283	
Dzenzursky	ERTS 1189-23574	
Ekarma	ERTS 1047-00040	
Fuss Pk.	ERTS 1047-00034	
Gamchen	ERTS 1189-23571	
Golovnin Caldera	ERTS 1088-00342	
	ERTS 1196-00351	
	ERTS 1088-00344	
Gorely Khrebet	ERTS 1189-23574	
	ERTS 1047-00025	
Ichinsky	SL 4-139-4025	70-mm, color, oblique, excellent
Ilinsky	ERTS 1117-23581	
	ERTS 1047-00031	
Ivan Grozny	SL 2-5-413	
	ERTS-1177-00283	
Kambalny	ERTS 1117-23581	
	ERTS 1047-00031	
Karpinsky Caldera	ERTS 1047-00034	
Karymsky	ERTS 1189-23571	
Kilchpinych	ERTS 1189-23571	
Kizimen	ERTS 1189-23571	
	ERTS 1477-23542	
Kliuchevskoi	ERTS 1477-23542	
Kolokol V.	SL 2-5-413	color, 70-mm, vert.
Komarova	ERTS 1189-23571	
Korialsky	ERTS 1189-23574	
Koshelev	ERTS 1117-23581	excellent
	ERTS 1047-00031	
Krasheninnikov	ERTS 1189-23571	
Krenitzyn Pk.	ERTS 1047-00040	
Kronotsky	ERTS 1189-23571	
Ksudach	ERTS 1117-23581	
	ERTS 1047-00031	
Kurdriavy V.	SL 2-5-413	color, 70-mm, vert.
	ERTS 1177-00283	

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
Kuntomintar	ERTS 1048-00094	
	ERTS 1047-00040	
Maly Semiachek	ERTS 1189-23571	
Mendeleev	ERTS 1088-00342	
	ERTS 1196-00344	
Mutnovsky	ERTS 1047-00025	
Opala	ERTS 1047-00025	
	ERTS 1209-00034	
Plosky Tolbachik	ERTS 1477-23542	
Raikoke	ERTS 1048-00094	
Severgin	ERTS 1047-00040	
Sheveluch	ERTS 1477-23542	
Sinarka	ERTS 1048-00094	
	ERTS 1047-00040	
Tao-rusyr Caldera	ERTS 1047-00040	
Tatarinov	ERTS 1047-00034	
Tebenkov	SL 2-5-413	color, 70-mm, vert.
Tiatia	ERTS 1088-00342	
	ERTS 1196-00344	
Trezubets V.	SL 2-5-413	color, 70-mm, vert.
Uzon Caldera	ERTS 1189-23571	
Zheltovsky	ERTS 1117-23581	
	ERTS 1047-00031	
Zhupanovsky	ERTS 1189-23574	
NORTH AMERICA		
Aleutians and Alaskan Penin.		
Akun Volcano	ERTS 1056-21331	
Akutan Volcano	SL 4-140-4089	70-mm, color, oblique
	ERTS 1056-21331	
Aniakchak Volcano	SL 4-140-4074	color, 70-mm, oblique
	ERTS 1035-21151	excellent
Augustine Volcano	ERTS 1266-20581	
	ERTS 1104-20574	
	ERTS 1428-20560	
	ERTS 1932-2041	
Mt. Carlisle	ERTS 1256-21461	partly cloudy
Chiginigak Volcano	SL 4-140-4074	color, 70-mm, oblique
	ERTS 1069-21033	
	ERTS 1070-21092	
Chuginodak Volcano	SL 4-140-4111	color, 70-mm, oblique
Mt. Cleveland	SL 4-140-4111 (?)	70-mm, color, oblique (tentative identification)
	ERTS 1256-21461	
Dana Volcano	SL 4-140-4074	color, 70-mm, oblique
Mt. Denison	ERTS 1105-21035	
Mt. Douglas	ERTS 1105-21035	
	ERTS 1104-20574	

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
Fisher Caldera	SL 4-4088-4089	70-mm, color, oblique
	ERTS 1056-21331	
Fourpeaked Mtn.	ERTS 1105-21035	
Frosty Volcano	SL 4-140-4088	70-mm, color, oblique
	SL 4-140-4089	70-mm, color, oblique
Great Sitkin Volcano	ERTS 1747-22052	
Iliamna Volcano	ERTS 1104-20574	
	ERTS 1428-20560	
	ERTS 1932-2041	
Isanotski Volcano	SL 4-140-4089	70-mm, color, oblique
	ERTS 1056-21331	
Kagamil Volcano	SL 4-140-4111	color, 70-mm, oblique (tentative identification)
	ERTS 1256-21461	partly cloudy
Kanaga Volcano	ERTS 1747-22052	
Katmai Volcano	ERTS 1105-21035	
Kiska Volcano	ERTS 1283-22381	cloudy
Kukak Volcano	ERTS 1105-21035	
Little Sitkin Volcano	ERTS 1283-22381	
Mageik Mtn.	ERTS 1105-21035	
Makushin Volcano	SL 4-140-4088	70-mm, color, oblique
	SL 4-140-4089	70-mm, color, oblqiue
	SL 4-140-4112	70-mm, color, oblique
	ERTS 1076-21444	
Martin Volcano	ERTS 1105-21035	
Mt. Moffett	ERTS 1747-22052	
Novarupta	ERTS 1105-21035	
Pavlof Volcano	SL 4-140-4074	70-mm, color, oblique
Pavlof Sister Volcano	SL 4-140-4074	color, 70-mm, oblique
Mt. Peulik	ERTS 1070-21092	
Pogromni Volcano	SL 4-140-4088	color, 70-mm, oblique
	SL 4-140-4089	color, 70-mm, oblique
	ERTS 1056-21331	
Purple Volcano	ERTS 1035-21151	
Mt. Redoubt	ERTS 1482-20560	
	ERTS 1932-20413	
Recheschnoi Volcano	SL 4-140-4112	70-mm, color, oblique
Segula Volcano	ERTS 1283-22381	
Shishaldin Volcano	SL 4-140-4088	70-mm, color, oblique
	SL 4-140-4089	70-mm, color, oblique
	ERTS 1056-21331	
Trident Volcano	ERTS 1105-21035	
Westdahl Volcano	SL 4-140-4088	color, 70-mm, oblique
	SL 4-140-4089	color, 70-mm, oblique
	ERTS 1056-21331	
Veniamnof Volcano	SL 4-140-4074	oblique, 70-mm, color

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
Vsevidof Volcano	SL 4-140-4112	70-mm, color, oblique
	SL 4-140-4111	70-mm, color, oblique
British Columbia		
Mt. Edziza	ERTS 1591-19160	
	ERTS 1789-19100	
Cascade Range		
Mt. Adams, WA	SL 3-124-2727	Sl. oblique, 35-mm, color
	SL 4-192-7081	35-mm, color, oblique
	ERTS 1005-18260	
Mt. Baker, WA	ERTS 1204-18321	
	ERTS 5139-17590	best
Crater of the Moon, ID	ERTS 1053-17524	
Mt. Hood	SL 3-124-2726	35-mm, sl. oblique, color
	SL 3-19-309	S 190A, B&W, superb
Mt. Jefferson	SL 3-19-309	S190A, excellent
	SL 3-19-310	S190A, excellent
Mt. Lassen, CA	SL 3-25-053	S190A
	SL 3-25-054	S190A
	SL 2-5-465	70-mm, color, slight oblique
	ERTS 1130-18230	
	ERTS 1291-18173	
Lava Beds National Monument, CA	ERTS 1184-18222	
Medicine Lake Highlands, CA	ERTS 1184-18222	
Newberry Caldera	SL 3-19-310	S190A, excellent
	SL 3-19-311	S190A, excellent
Mt. Rainier, WA	SL 3-124-2726	oblique, 35-mm, color
	ERTS 1005-18260	
Mt. St. Helens, WA	SL 4-192-7081	35-mm, color
	ERTS 1003-18260	
Mt. Shasta, CA	SL 3-25-053	B&W, S190A, vertical, excellent
	SL 2-5-465	70-mm, color
	ERTS 1184-18222	
Three Sisters	SL 3-19-309	excellent, S190A
	SL 3-19-310	excellent, S190A
CENTRAL AMERICA AND MEXICO		
Northern Mexico		
Pinacates, Sonora	SL 65-34675	Gemini, color, 70-mm
Volcan de las Tres Virgenes (Baja CA)	ERTS 1264-17295	
Central Mexico		
Volcan Ceboruco	ERTS 1078-16560	

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
Colima, Est. de Jalisco	ERTS 1203-16513	
	SL 4-199-7574	color, 35-mm, near vertical, cloudless
	ERTS 1203-16512	
Ixtaccihuatl	SL 4-200-7619	color, 35-mm
	SL 4-200-7620	color, 35-mm
	SL 4-207-8056	35-mm, excellent
	SL 4-139-4062	70-mm, color, stereo
	ERTS 1181-16284	
	ERTS 1163-16284	
Jorullo	ERTS 1255-16404	
La Malinche	SL 4-200-7621	35-mm, color (out of focus)
	ERTS 1163-16284	
Nauchampapetl (N. of Orizaba)	ERTS 1180-16225	
Paricutin, Est. de Michoacan	SL 4-199-7574	color, 35-mm, tentative identification
	ERTS 1184-16452	
Pico de Orizaba	SL 4-200-7622	35-mm, color
	SL 4-139-4064	70-mm, color
	ERTS 1180-16225	
Popocatepetl	SL 4-200-7619	partial stereo, color, 35-mm, whole ridge
	SL 4-200-7620	partial stereo, color, 35-mm, whole ridge
	SL 4-207-8056	35-mm, excellent, slight oblique
	SL 4-139-4062 to 4064	stereo, vert., 70-mm, color
	ERTS 1181-16284	
	AS-9-19-3012	Apollo 9, excellent
Volcan de San Martin	ERTS 1197-16172	
Xitli	ERTS 1074-16332	
Guatemala		
Agua	SL 3-25-078	stereo, S190A
	SL 3-25-079	stereo, S190A
	ERTS 1247-15560	
	SL 4-202-7746	color, 35-mm
	SL 4-201-7667	color, 35-mm
	SL 4-89-290 to 292	stereo pair
	SL 4-48-111	color, S190, excellent

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
Acatenango	SL 3-25-078	B&W, S190A, partly cloudy
	SL 3-25-079	B&W, S190A, partly cloudy
	ERTS 1247-15560	
	SL 4-202-7746	35-mm, oblique
	SL 4-201-7667	35-mm, vert.
	SL 4-290-292	excellent, stereo
	SL 4-48-111	color, S190, excellent
Atitlan	SL 3-25-077	stereo, S190A, excellent
	SL 3-25-078	stereo, S190A, excellent
	ERTS 1274-15560	
	SL 4-202-7746	35-mm, oblique
	SL 4-201-7667	35-mm, oblique
	SL 4-48-111	S190, color, oblique
Fuego	SL 3-25-078	B&W, S190A, partly cloudy stereo
	SL 3-25-079	B&W, S190A, partly cloudy, stereo
	ERTS 1247-15560	
	SL 4-202-7746	35-mm, oblique
	SL 4-201-7667	35-mm, oblique
	SL 4-89-290 to 292	S190, stereo
	SL 4-48-111	color, S190, excellent
Pacaya	SL 3-25-078 to 079	B&W, S190A, partly cloudy, stereo
	SL 4-89-290 to 292	S190, stereo
	SL 4-48-111	color, S190, excellent
Cerro Quemado	SL 3-25-076 to 078	S190A, partly cloudy, stereo
	ERTS 1247-15560	
	SL 4-202-7746	35-mm, color, fume
Santa Maria-Santaguito	SL 3-25-076 to 077	good
	ERTS 1247-15560	
	SL 4-202-7746	35-mm, color
Tacana	SL 3-25-075 to 077	exact location not identified, B&W, S190A, partly cloudy, stereo
	SL 4-202-7746	35-mm, oblique
Tajumulco	SL 3-25-075 to 077	exact location not identified, S190A, partly cloudy, stereo
	SL 4-202-7746	35-mm, oblique
Tecuamburro	ERTS 1210-15500	tentative identification
Toliman	ERTS 1247-15560	
	SL 4-48-111	color, S190, excellent

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
Zunil	ERTS 1247-15560	
El Salvador		
Coatepeque	ERTS 1210-15503	
	ERTS 1210-15500	
	SL 4-201-7670	35-mm
Conchagua	ERTS 1209-15444	
Conchaguita	ERTS 1209-15444	
Lake Ilopango and Islas		
Quemadao	ERTS 1120-15502	
	ERTS 1210-15503	
	ERTS 1210-15500	
	SL 4-201-7670	35-mm, vert.
	ERTS 1209-15444	
Izalco	ERTS 1210-15503	
	ERTS 1210-15500	
San Marcelino	ERTS 1210-15500	
	ERTS 1210-15503	
San Miguel	SL 4-201-7670	35-mm, color
	ERTS 1209-15444	
San Salvador	ERTS 1210-15500	
	ERTS 1210-15503	
Volcano San Vicente	ERTS 1120-15502	partly cloudy
	ERTS 1210-15503	
	ERTS 1209-15444	
Volcano Santa Ana	ERTS 1210-15503	
	ERTS 1210-15500	
Tecapa	ERTS 1209-15444	
Nicaragua		
Chichigalpa	ERTS 1190-15384	cloudy
	ERTS 1154-15385	excellent
	SL 4-201-7671	35-mm, oblique
Concepcion	SL 3-121-2430	70-mm color (partly cloudy)
	ERTS-1243-15335	
Coseguina	ERTS 1190-15384	
	ERTS 1154-15385	excellent
	SL 4-201-7671	35-mm, oblique
	SL 4-200-7627	35-mm, oblique
	ERTS 1209-15444	
Hervederos de S. Jacinto		
and Tisato	ERTS 1154-15385	excellent
Masaya	SL 3-121-2430	70-mm, color, hazy
	ERTS 1243-15335	
Mombacho	SL 3-121-2430	70-mm, color, partly cloudy
	ERTS 1243-15335	

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
Momotombo	SL 3-121-2430	70-mm, color, hazy
	ERTS 1154-15385	excellent
	SL 4-201-7671	35-mm, oblique
	ERTS 1243-15335	
Cerro Negro	ERTS 1154-15385	excellent
Las Pilas	ERTS 1154-15385	excellent
	SL 4-201-7671	35-mm, oblique
Santa Clara	ERTS 1154-15385	excellent
Telica	ERTS 1154-15385	excellent
	SL 4-201-7671	35-mm, oblique
El Viejo	ERTS 1190-15384	cloudy
	ERTS 1154-15385	excellent
	SL 4-201-7671	35-mm, oblique
Costa Rica		
Irazu	ERTS 2021-15105	
Orosi	ERTS 1243-15335	
Poas	ERTS 2021-15105	
Rincon de la Vieja	ERTS 1243-15335	
Turrialba	ERTS 2021-15105	
SOUTH AMERICA		
Peru		
El Misti	NASA S-66-54832	Gemini, color, 70-mm
	NASA S-66-54833	Gemini, color, 70-mm
	ERTS 1246-14155	
Huaynaputina	ERTS 1246-14155	
Tutupaca	ERTS 1191-14100	
Ubinas	ERTS 1246-14155	
Chile, Argentina, Bolivia		
Antofalla	SL 4-137-3676	color, 70-mm, slightly oblique
Guallatiri	ERTS 1244-14051	
Irrupunctu	SL 4-137-3676	color, 70-mm, tentative identification
	ERTS 1243-14001	
Isluga	ERTS 1244-14051	
Lascar	ERTS 1243-14010	tentative identification
Llullaillaco	SL 4-137-3676	color
	ERTS 1243-14010	
Nevados Ojos del Solado	SL 4-137-3676	color, 70-mm, slightly oblique
Olca	SL 4-137-3676	color, 70-mm
	ERTS 1243-14001	
Oyahue	SL 4-137-3676	color, 70-mm
	ERTS 1243-14001	
San Pablo	ERTS 1243-14001	
San Pedro	ERTS 1243-14001	
Cerros del Tatio	ERTS 1243-14001	

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
South Chile		
Antuco	SL 4-202-7754 to 7755	35-mm, color, tentative identification
	ERTS 1224-13590	
Cerro Azul	SL 4-202-7754 to 7755	35-mm, color, tentative identification
	ERTS 1188-13581	
Los Copahues	ERTS 1224-13590	
Descabezado Grande	SL 4-202-7754 to 7755	35-mm, color tentative
	ERTS 1188-13581	
Domyo	ERTS 1224-13590	
Lastarria	ERTS 1243-14010	tentative identification
Llaima	ERTS 1224-13592	
Longuimay	ERTS 1224-13592	
Minchinmavida	ERTS 1223-13545	tentative identification
Nevados de Chillan	SL 4-202-7754 to 7755	35-mm, color, tentative
	ERTS 1224-13590	
Peteroa	SL 4-202-7754 to 7755	35-mm, color, tentative identification
	ERTS 1188-13581	
"Quizapu"	ERTS 1188-13581	
San Jose de Maipo	ERTS 1224-13581	
Tinguiririca	SL 4-202-7754 to 7755	35-mm, color, tentative identification
	ERTS 1224-13581	
Tupangatito	ERTS 1224-13574	
Cerro Ventisquero	ERTS 1474-13470	
Villarica	ERTS 1224-13592	
ANTARCTICA		
Deception Island, South Shetland Islands	ERTS 1208-12343	
Mt. Erebus	ERTS 1208-19324	
	ERTS 1154-19322	
EAST PACIFIC ISLANDS		
Galapagos		
Galapagos (general)	AS9-19-3031	Apollo 9, cloudy, 70-mm, color
	AS9-19-3032	
	AS9-19-3029	
	AS9-19-3030	

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
Volcano Alcedo (Isla Isabela)	SL 3-121-2383	70-mm, color
	SL 3-116-2050	good, 70-mm, color
	SL 3-116-2051	good
	SL 3-116-2052	good, dark
	SL 3-126-2880	35-mm, excellent
	SL 3-127-2946	35-mm
Cape (Cabo) Berkeley (Isla Isabel)	SL 3-121-2383	70-mm, color, cloudy
	SL 3-116-2050	70-mm, color, superb
	SL 3-116-2051	color
	SL 3-116-2052	dark
	SL 3-126-2879	35-mm, color, excellent
	SL 3-127-2945	35-mm, color, excellent
Cerro Azul (Isla Isabela)	SL 3-121-2383	70-mm, color, cloudy
	SL 3-116-2051	
	SL 3-116-2052	
	SL 3-126-2881	35-mm, color, excellent
	SL 3-127-2942	35-mm, color, excellent, stereo
	SL 3-127-2943	35-mm, color, excellent, stereo
Volcano Darwin	SL 3-116-2049	70-mm, color, dark but legible
	SL 3-116-2050	superb view
	SL 3-116-2051	superb view
	SL 3-116-2052	superb view
	SL 3-127-2.16	cloudy, south slope
	SL 3-127-2945	cloudy, south slope
Fernandina	SL 3-121-2383	70-mm, hand held, color, cloudy
	SL 3-116-2050	70-mm, hand held, color, good
	SL 3-116-2051	
	SL 3-116-2052	oblique
	SL 3-126-2882	vert. 35-mm, color
Sierra Negra	SL 3-126-2881	excellent, 35-mm, color
	SL 3-127-2943	excellent, 35-mm, color, stereo
	SL 3-127-2944	excellent, 35-mm, color, stereo
Islas Juan Fernandez	SL 4-197-7417	color, 70-mm
Volcano Wolf	SL 3-116-2049	70-mm, hand held, color, dark print
	SL 3-116-2050	superb view
	SL 3-116-2051	superb view
	SL 3-116-2052	superb view

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
Volcano Wolf (cont'd)	SL 3-126-2879	superb view, 35-mm, color good for flows
	SL 3-127-2945	superb view, cloudy
Hawaii		
Haleakala, Maui	SL 4-191-7048	35-mm, color, vertical, good
	ERTS 1221-20181	
Hualalai	ERTS 1221-20181	
Kaui and Niihau	SL 4-197-7418	35-mm, color, vertical, good
Kilauea	SL 4-139-3998 to 3999	color, 70-mm, stereo
	ERTS 1221-20183	
Mauna Kea	SL 4-139-3998 to 3999	color, 70-mm, stereo
	ERTS 1221-20181	
Mauna Loa	SL 4-139-3998 to 3999	color, 70-mm, stereo
	ERTS 1221-20183	
	ERTS 1221-20181	
ATLANTIC ISLANDS		
Ascension Island	SL 4-193-7144	35-mm, color, oblique
Beerenberg Volcano, Jan Mayen	ERTS 1048-12061	
Tristan de Cunha	SL 4-206-8004	35-mm color, oblique
West Indies		
The Mountain, Saba Island	ERTS 1246-14061	
Nevis Peak, Nevis Island	ERTS 1246-14061	
Mt. Pelee, Martinique	ERTS 1244-13553	
Qualibou, St. Lucia Island	ERTS 1244-13553	
Soufriere Hills, Montserrat	ERTS 1209-14004	
	ERTS 1209-14001	
Soufriere de Guadelupe	ERTS 1209-14004	cloudy view
Canary Islands		
Canary Islands	S-66-38442	Gemini, general oblique view, 70-mm, color
	SL 3-115-1872	oblique, 70-mm, color, hazy
Fuerte Ventura	S-65-45735	70-mm, color, partly cloudy, slightly oblique
Tenerife	S-65-63150	color, Gemini, 70-mm
Cape Verde Islands		
Fogo	SL 4-191-7060	35-mm, oblique, fuzzy
Iceland		
Askja	ERTS 1229-12142	
Heimay	ERTS 1229-12151	
	ERTS 1121-12143	

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
Hekla	ERTS 1392-12191	can see ash fall
	ERTS 1372-12080	
	ERTS 1229-12145	
Hengill	ERTS 1392-12191	
Katla	ERTS 1048-12080	ERTS 1048
	ERTS 1372-12080	
	ERTS 1229-12145	
Krafla	ERTS 1446-12173	
Laki	ERTS 1392-12191	
	ERTS 1192-12084	also the Vatnajokul Icecap
	ERTS 1048-12080	
	ERTS 1372-12080	
Myvatn Fissure	ERTS 1446-12173	
	ERTS 1229-12142	
Reykjanes Thermal Area	ERTS 1392-12191	
Snaefellsjökul	ERTS 1088-12305	
Sreinagja	ERTS 1446-12173	
EUROPE		
Italy		
Etna	SL 3-87-354 to 356	color, i.r.
	SL 3 118-2145	35-mm, color, oblique
	SL 3-25-338	B&W, S190A
	ERTS 1123-09072	
	SL 3-44-338	S190A
	SL 3-48-338	S190A
	SL 3-45-338	color, i.r., S190A excellent
	SL 3-46-338	color, S190A
	ERTS 1106-09130	
	ERTS 1106-09124	
	ERTS 1016-09115	
Lipari, Aeolian Islands	ERTS 1106-09124	
	ERTS 1016-09115	
Phlegrean Fields	SL2-5-358 to 359	stereo, color, 70-mm
Stromboli	ERTS 1070-09115	fume cloud
	ERTS 1106-09124	
	ERTS 1016-09115	
Vesuvius	SL 2-5-358 to 359	stereo, color, 70-mm, vertical
Vulcano, Aeolian Islands	ERTS 1106-09124	
	ERTS 1016-09115	
	ERTS 1070-09115	
Greece		
Santorini	SL 3-122-2557	70-mm

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
AFRICA AND SAUDI ARABIA		
West Africa		
Mt. Cameroon	ERTS 1176-09105	
North-Central Africa		
Emi Koussi Caldera-Tchad	AS-7-5-1621	70-mm, color
Jebel Marra, Sudan	S-65-63160	70-mm, color
Tousside Volcano, Tibesti Range, Tchad	AS9-20-3106	
East Africa		
Mt. Abida, Ethiopia	ERTS 1226-07034	
Afdera, Ethiopia	ERTS 1173-07075	
	ERTS 1191-07081	
Alaita, Ethiopia	ERTS 1173-07075	
	ERTS 1191-07081	
Alu, Ethiopia	ERTS 1191-07081	
	ERTS 1173-07073	
	ERTS 1101-07074	
Mt. Amarta, Ethiopia	ERTS 1173-07075	
	ERTS 1191-07081	
Mt. Ayelu, Ethiopia	ERTS 1226-07034	
Dubbi, Ethiopia	ERTS 1173-07075	
	ERTS 1191-07081	
	ERTS 1173-07073	excellent
	ERTS 1101-07074	
Mt. Elgon, Uganda	ERTS 1157-07225	
Erta Ale, Ethiopia	ERTS 1173-07075	
	ERTS 1191-07081	
	AS-9-23-3536	color
Mt. Gabuli, Ethiopia	ERTS 1173-07073	
	ERTS 1101-07074	
Gali Coma, Ethiopia	ERTS 1173-07075	
	ERTS 1191-07081	
Höhnel Island, Kenya	ERTS 1192-07165	
Kebrit Alē, Ethiopia	ERTS 1173-07073	
	ERTS 1101-07074	
Kieyo Volcanic Field, Tanzania	ERTS 1048-07193	
Kerimasi, Tanzania	ERTS 1192-07183	
Kilimanjaro, Tanzania	ERTS 1533-07091	
Menengai, Kenya	ERTS 1516-07143	
Meru, Tanzania	ERTS 1533-07091	
Ngorongoro, Tanzania	ERTS 1192-07183	
Nyamurugira, Zaire	ERTS 2049-73515	
Nyiragongo, Zaire	ERTS 2049-73515	
Ol Doinyo Eburru, Kenya	ERTS 1516-07143	
Ol Doinyo Lengai, Tanzania	ERTS 1192-07183	

VOLCANO IDENTIFICATION	IMAGE NUMBER	COMMENTS
Rutschuru, Zaire	ERTS 2049-73515	
Shaitani, Kenya	ERTS 1533-07091	
Teleki Volcano, Kenya	ERTS 1192-07165	
Ummuna, Ethiopia	ERTS 1173-07075	
	ERTS 119-07081	
Saudi Arabia and Yemen		
Djebel El-Esi, Yemen	ERTS 1171-06560	
Halā-'L-"Ishqa, Saudi Arabia	ERTS 1071-07374	
Harra of Arhab Volcanic Field, Yemen	ERTS 1369-06551	
Harras of Dhamar, Yemen	ERTS 1171-06560	
Volcanic field of Harrat-el-Medina, Saudi Arabia	ERTS 1230-7223	
Harrat-er-Raha, Saudi Arabia	ERTS 1071-07374	
Djebel Hattab, Yemen	ERTS 1369-06551	
Djebel Zebib, Yemen	ERTS 1369-06551	
Red Sea		
Saddle Island	ERTS 1083-07065	
Djebl Teyr	ERTS 1083-07065	
Indian Ocean		
Piton de la Fournaise, Reunion Island	ERTS 1193-05462	

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