Cross-Reference List of Volcanoes and Navigation Aids

EUROPE-AFRICA-MIDDLE EAST-INDIAN OCEAN

VOLCANO NAME	COUNTRY/STATE REGION	VOLCANO NUMBER	VOLCANO LAT-LONG	RADIAL(MAG BRG) & DISTANCE FROM REFERENCE NAVIGATION AID
ALAYTA	ETHIOPIA	201-112	N12 52.5 E 040 34.1	298°/168NM DJIBOUTI (DTI) VORDME
ARDOUKOBA	DJIBOUTI	201-126	N11 37.1 E 042 28.1	276°/37NM DJIBOUTI (DTI) VORDME
CAMPI FLEGREI	ITALY	101-01	N40 49.4 E 014 08.2	327°/17NM SORRENTO (SOR) VORDME
CAMPI FLEGREI MAR SICILY	ITALY	101-07	N37 06.0 E 012 42.0	064°/39NM PANTELLERIA (PAN) VORDME
CHYULU HILLS	AFRICA-E	202-13	S02 40.5 E 037 52.5	269°/17NM MTITO ANDEI (MTA) VORDME
DALLOL	ETHIOPIA	201-041	N14 14.3 E 040 18.0	125°/102NM ASMARA (ASM) VORDME
DAMA ALI	ETHIOPIA	201-141	N11 16.5 E 041 37.5	259°/87NM DJIBOUTI (DTI) VORDME
DJEBEL TEYR	RED SEA	201-01	N15 42.0 E 041 44.3	212°/86NM GIZAN (GIZ) VORTAC
DUBBI	ETHIOPIA	201-10	N13 34.5 E 041 48.3	223°/69NM HODEIDAH (HDH) VORDME
EMURUANGOGOLAK	AFRICA-E	202-051	N01 30.0 E 036 19.5	046°/84NM ELDORET (ELD) VORDME
ERTA ALE	ETHIOPIA	201-08	N13 36.0 E 040 40.1	132°/144NM ASMARA (ASM) VORDME
ES SAFA	SYRIA	300-05	N33 04.5 E 037 09.0	113°/38NM DAMASCUS (DAM) VORDME
ETNA	ITALY	101-06	N37 44.0 E 015 00.1	004°/16NM CATANIA (CAT) VORDME
FENTALE	ETHIOPIA	201-19	N08 58.3 E 039 55.5	088°/67NM ADDIS (ADS) VORDME
HARRAS OF DHAMAR	ARABIA-S	302-06	N14 34.1 E 044 40.1	029°/60NM TAIZ (TAZ) VORDME
HEARD	INDIAN OCEAN-S	304-01	S53 06.2 E 073 30.5	171°/2065NM TOLAGNARO (FDN) VOR
JABAL YAR	ARABIA-S	302-01	N17 03.0 E 042 49.5	058°/16NM GIZAN (GIZ) VORTAC
JEBEL ZUBAYR	RED SEA	201-02	N15 04.5 E 042 10.1	290°/50NM HODEIDAH (HDH) VORDME
KARTHALA	INDIAN OCEAN-W	303-01	S11 45.0 E 043 22.5	161°/15NM HAHAIA (MORONI) (HAI) VOR
KIEYO	AFRICA-E	202-17	S09 13.5 E 033 46.5	355°/43NM KARONGA (VKA) VORDME
KONE	ETHIOPIA	201-20	N08 48.0 E 039 41.3	099°/54NM ADDIS (ADS) VORDME
LONGONOT	AFRICA-E	202-10	S00 55.1 E 036 27.0	308°/37NM NAIROBI (NV) VORDME
MANDA-INAKIR	ETHIOPIA	201-122	N12 22.5 E 042 12.0	313°/72NM DJIBOUTI (DTI) VORDME
MARION ISLAND	INDIAN OCEAN-S	304-08	S46 54.0 E 037 45.0	177°/947NM EAST LONDON (ELV) VORDME
MERU	AFRICA-E	202-16	S03 15.0 E 036 45.0	297°/23NM KILIMANJARO (KV) VORDME
METHANA	GREECE	102-02	N37 36.5 E 023 20.1	033°/9NM DIDIMON (DDM) VORDME
MOUNT CAMEROON	AFRICA-W	204-01	N04 12.1 E 009 10.1	293°/36NM DOUALA (DLA) VORDME
NISYROS	GREECE	102-05	N36 34.5 E 027 10.5	286°/46NM RHODOS (RDS) VORTAC
NYAMURAGIRA	AFRICA-C	203-02	S01 24.3 E 029 12.0	354°/16NM GOMA (GOM) VORDME
NYIRAGONGO	AFRICA-C	203-03	S01 31.1 E 029 15.0	006°/9NM GOMA (GOM) VORDME
OKU VOLCANO FIELD	AFRICA-W	204-003	N06 15.0 E 010 30.0	065°/25NM BAMENDA (BND) VORDME
OL DOINYO LENGAI	AFRICA-E	202-12	S02 45.0 E 035 54.1	300°/82NM KILIMANJARO (KV) VORDME
OLKARIA	AFRICA-E	202-09	S00 54.1 E 036 17.3	302°/46NM NAIROBI (NV) VORDME
PANTELLERIA	ITALY	101-071	N36 46.1 E 012 01.1	135°/3NM PANTELLERIA (PAN) VORDME
PITON DE FOURNAISE	INDIAN OCEAN-W	303-02	S21 13.4 E 055 42.5	171°/24NM ST DENIS (SDG) VORDME
SANTA ISABEL	AFRICA-W	204-02	N03 34.5 E 008 45.0	174°/11NM MALABO (MBO) VORDME
SANTORINI	GREECE	102-04	N36 24.1 E 025 23.5	114°/47NM MILOS (MIL) VORDME
SOUTH ISLAND	AFRICA-E	202-02	N02 37.5 E 036 36.0	115°/65NM LODWAR (LOV) VORDME
ST PAUL	INDIAN OCEAN-S	304-03	S38 43.1 E 077 31.5	159°/1503NM PLAISANCE (MAURITIUS) (PLS) VORDME
STROMBOLI	ITALY	101-04	N38 47.2 E 015 12.5	271°/54NM CARAFFA (CDC) VORTAC
THE BARRIER	AFRICA-E	202-03	N02 19.1 E 036 34.1	129°/74NM LODWAR (LOV) VORDME
TULLU MOJE	ETHIOPIA	201-25	N08 09.3 E 039 07.5	156°/52NM ADDIS (ADS) VORDME
VESUVIO	ITALY	101-02	N40 49.2 E 014 25.3	015°/14NM SORRENTO (SOR) VORDME
VISOKE	AFRICA-C	203-05	S01 28.1 E 029 29.3	051°/20NM GOMA (GOM) VORDME
VULCANO	ITALY	101-05	N38 24.1 E 014 57.4	358°/56NM CATANIA (CAT) VORDME

NEW ZEALAND-SOUTHWEST PACIFIC

VOLCANO NAME	COUNTRY/STATE REGION	VOLCANO NUMBER	VOLCANO LAT-LONG	RADIAL(MAG BRG) & DISTANCE FROM REFERENCE NAVIGATION AID
AMBRYM	VANUATU-SW PACIFIC	507-04	S16 15.0 E 168 07.1	343°/84NM PORT VILA (VLI) VORDME
AOBA	VANUATU-SW PACIFIC	507-03	S15 24.0 E 167 49.5	338°/137NM PORT VILA (VLI) VORDME
AUCKLAND FIELD	NEW ZEALAND	401-02	S36 54.0 E 174 52.1	003°/6NM AUCKLAND (AA) VORDME
BAGANA	BOUGAINVILLE-SW PACIFIC	505-02	S06 08.2 E 155 11.4	053°/282NM KIRIWINA (KWA) VORDME
BAM	NEW GUINEA-NE OF	501-01	S03 36.0 E 144 51.0	085°/70NM WEWAK (WK) VORDME
BAMUS	NEW BRITAIN-SW PACIFIC	502-11	S05 12.0 E 151 13.5	164°/157NM KAVIENG (KAV) VOR
BILLY MITCHELL	BOUGAINVILLE-SW PACIFIC	505-011	S06 05.3 E 155 13.3	053°/285NM KIRIWINA (KWA) VORDME
BRIMSTONE ISLAND	KERMADEC IS	402-02	S30 13.5 W178 55.1	022°/508NM WHENUAPAI (AUCKLAND) (WP) VORTAC
CURACOA	TONGA-SW PACIFIC	403-101	S15 37.1 W173 40.1	210°/144NM FALEOLO (UPOLU I.) (FA) VORDME
DAKATAUA	NEW BRITAIN-SW PACIFIC	502-04	S05 03.2 E 150 06.3	190°/153NM KAVIENG (KAV) VOR
EAST EPI	VANUATU-SW PACIFIC	507-06	S16 40.5 E 168 22.1	355°/59NM PORT VILA (VLI) VORDME
FALCON ISLAND	TONGA-SW PACIFIC	403-05	S20 19.1 W175 25.1	330°/157NM FUA'AMOTU (TBU) VORDME
FONUALEI	TONGA-SW PACIFIC	403-10	S18 01.1 W174 19.3	359°/198NM FUA'AMOTU (TBU) VORDME
GAUA	VANUATU-SW PACIFIC	507-02	S14 16.1 E 167 30.0	336°/207NM PORT VILA (VLI) VORDME
HOME REEF	TONGA-SW PACIFIC	403-08	S18 59.3 W174 46.3	354°/136NM FUA'AMOTU (TBU) VORDME
HUNTER ISLAND	SW PACIFIC	508-02	S22 24.0 E 172 03.0	099°/285NM LIFOU (LFU) VOR
KARKAR	NEW GUINEA-NE OF	501-03	S04 38.6 E 145 57.5	011°/34NM MADANG (MD) VORDME
KAVACHI	SOLOMON IS-SW PACIFIC	505-06	S09 01.1 E 157 57.0	272°/125NM HONIARA (HN) VORDME
KUWAE	VANUATU-SW PACIFIC	507-05	S16 49.4 E 168 32.1	007°/52NM PORT VILA (VLI) VORDME
LAMINGTON	NEW GUINEA	503-01	S08 57.0 E 148 09.0	201°/113NM GIRUA (GUA) VORDME
LANGILA	NEW BRITAIN-SW PACIFIC	502-01	S05 31.3 E 148 25.1	021°/73NM FINSCHHAFEN (FIN) VORDME
LATE	TONGA-SW PACIFIC	403-09	S18 48.2 W174 39.0	357°/148NM FUA'AMOTU (TBU) VORDME
LOLOBAU	NEW BRITAIN-SW PACIFIC	502-13	S04 55.1 E 151 09.3	165°/140NM KAVIENG (KAV) VOR
LONG ISLAND	NEW GUINEA-NE OF	501-05	S05 21.3 E 147 07.1	011°/76NM NADZAB (NZ) VORDME
LOPEVI	VANUATU-SW PACIFIC	507-05	S16 30.3 E 168 20.5	353°/68NM PORT VILA (VLI) VORDME
MANAM	NEW GUINEA-NE OF	501-02	S04 06.0 E 145 03.4	321°/79NM MADANG (MD) VORDME
MATTHEW ISLAND	SW PACIFIC	508-01	S22 19.5 E 171 19.1	102°/246NM LIFOU (LFU) VOR
METIS SHOAL	TONGA-SW PACIFIC	403-07	S19 10.5 W174 52.1	353°/124NM FUA'AMOTU (TBU) VORDME
MONOWAI SEAMOUNT	KERMADEC IS	402-05	S25 53.2 W177 11.2	187°/299NM FUA'AMOTU (TBU) VORDME
MOUNT EGMONT	NEW ZEALAND	401-03	S39 18.0 E 174 04.1	176°/18NM NEW PLYMOUTH (NP) VORDME
NIUAFO'OU	TONGA-SW PACIFIC	403-11	S15 36.0 W175 37.5	154°/144NM HIHIFO (UVEA I., WALLIS IS.) (HOI) VOR
OFU-OLOSEGA	SAMOA-SW PACIFIC	404-01	S14 10.3 W169 37.1	069°/64NM PAGO PAGO (TUT) VORTAC
PAGO	NEW BRITAIN-SW PACIFIC	502-08	S05 34.5 E 150 31.1	062°/170NM FINSCHHAFEN (FIN) VORDME
RABAUL	NEW BRITAIN-SW PACIFIC	502-14	S04 16.2 E 152 12.1	134°/130NM KAVIENG (KAV) VOR
RAOUL ISLAND	KERMADEC IS	402-03	S29 16.1 W177 55.1	182°/503NM FUA'AMOTU (TBU) VORDME
RITTER ISLAND	NEW GUINEA-NE OF	501-07	S05 31.1 E 148 07.2	007°/67NM FINSCHHAFEN (FIN) VORDME
RUAPEHU	NEW ZEALAND	401-10	S39 16.5 E 175 34.1	027°/42NM MAXWELL (MX) VORDME
RUMBLE III	NEW ZEALAND	401-13	S35 44.4 E 178 28.4	017°/134NM ROTORUA (RO) VORDME
SAVAI'I	SAMOA-SW PACIFIC	404-04	S13 36.4 W172 31.3	280°/33NM FALEOLO (UPOLU I.) (FA) VORDME
SAVO	SOLOMON IS-SW PACIFIC	505-07	S09 07.5 E 159 49.1	318°/29NM HONIARA (HN) VORDME
SORETIMEAT	VANUATU-SW PACIFIC	507-01	S13 48.0 E 167 28.1	337°/235NM PORT VILA (VLI) VORDME
ST ANDREW STRAIT	ADMIRALTY IS-SW PACIFIC	500-01	S02 22.5 E 147 21.0	024°/182NM MADANG (MD) VORDME
TARAWERA	NEW ZEALAND	401-06	S38 13.4 E 176 30.3	107°/11NM ROTORUA (RO) VORDME
TINAKULA	SANTA CRUZ IS-SW PAC	506-01	S10 22.5 E 165 48.0	090°/346NM HONIARA (HN) VORDME
TOFUA	TONGA-SW PACIFIC	403-06	S19 45.0 W176 04.5	315°/103NM FUA'AMOTU (TBU) VORDME
TONGARIRO	NEW ZEALAND	401-08	S39 07.5 E 175 38.3	095°/43NM OHURA (OR) VORDME
TRAITOR'S HEAD	VANUATU-SW PACIFIC	507-09	S18 45.0 E 169 13.5	126°/86NM PORT VILA (VLI) VORDME
ULAWUN	NEW BRITAIN-SW PACIFIC	502-12	S05 03.0 E 151 19.5	162°/149NM KAVIENG (KAV) VOR
UNNAMED	KERMADEC IS	402-04	S29 10.5 W177 52.1	182°/497NM FUA'AMOTU (TBU) VORDME
UNNAMED	SW PACIFIC	508-03	S25 46.5 E 168 37.5	356°/199NM NORFOLK I. (NF) VORDME
UNNAMED	ADMIRALTY IS-SW PACIFIC	500-03	S03 01.5 E 147 46.5	037°/176NM MADANG (MD) VORDME
UNNAMED	TONGA-SW PACIFIC	403-01	S21 27.3 W175 46.1	254°/17NM FUA'AMOTU (TBU) VORDME
UNNAMED	TONGA-SW PACIFIC	403-02	S20 51.0 W175 31.5	303°/32NM FUA'AMOTU (TBU) VORDME
UNNAMED	TONGA-SW PACIFIC	403-03	S20 34.1 W175 23.5	328°/42NM FUA'AMOTU (TBU) VORDME
VICTORY	NEW GUINEA	503-03	S09 12.0 E 149 04.1	113°/55NM GIRUA (GUA) VORDME
WAIOWA	NEW GUINEA	503-04	S09 34.1 E 149 04.3	129°/69NM GIRUA (GUA) VORDME
WHITE ISLAND	NEW ZEALAND	401-04	S37 31.1 E 177 10.5	059°/34NM ROTORUA (RO) VORDME
YASUR	VANUATU-SW PACIFIC	507-10	S19 31.1 E 169 25.3	136°/129NM PORT VILA (VLI) VORDME

INDONESIA

VOLCANO NAME	COUNTRY/STATE REGION	VOLCANO NUMBER	VOLCANO LAT-LONG	RADIAL(MAG BRG) & DISTANCE FROM REFERENCE NAVIGATION AID
AGUNG	LESSER SUNDA IS	604-02	S08 20.3 E 115 30.3	039°/32NM BALI (DEN PASAR) (BLI) VORDME
AMBANG	SULAWESI-INDONESIA	606-11	N00 45.0 E 124 25.1	219°/48NM MANADO (MNO) VORDME
API SIAU	SANGIHE IS-INDONESIA	607-02	N02 46.5 E 125 28.5	023°/80NM MANADO (MNO) VORDME
ARJUNO-WELIRANG	JAVA	603-29	S07 43.3 E 112 34.5	207°/25NM SURABAYA (SBY) VORDME
AWU	SANGIHE IS-INDONESIA	607-04	N03 40.1 E 125 30.0	014°/130NM MANADO (MNO) VORDME
BANDA API	BANDA SEA	605-09	S04 31.3 E 129 52.2	116°/114NM AMBON (AMN) VORDME
BANUA WUHU	SANGIHE IS-INDONESIA	607-03	N03 08.2 E 125 29.3	018°/100NM MANADO (MNO) VORDME
BARREN ISLAND	ANDAMAN IS-IND OCEAN	600-01	N12 17.3 E 093 52.3	060°/76NM PORT BLAIR (PPB) VORDME
BATU TARA	LESSER SUNDA IS	604-26	S07 47.3 E 123 34.4	287°/124NM DILI (DIL) VORDME
BATUR	LESSER SUNDA IS	604-01	S08 14.3 E 115 22.3	022°/33NM BALI (DEN PASAR) (BLI) VORDME
BUR NI TELONG	SUMATRA	601-05	N04 46.1 E 096 48.3	233°/33NM LHOK SUKON (LSN) VOR
CEREME	JAVA	603-17	S06 53.3 E 108 24.0	174°/35NM INDRAMAYU (IMU) VORDME
COLO UNA UNA	SULAWESI-INDONESIA	606-01	S00 10.1 E 121 36.3	066°/111NM PALU (PAL) VORDME
DEMPO	SUMATRA	601-23	S04 01.5 E 103 07.5	232°/114NM PALEMBANG (PLB) VORDME
DIENG VOLCANO COMPLEX	JAVA	603-20	S07 12.0 E 109 55.1	242°/29NM ACHMAD YANI (SEMARANG) (ANY) VORDME
DUKONO	HALMAHERA-INDONESIA	608-01	N01 42.0 E 127 52.1	086°/177NM MANADO (MNO) VORDME
EBULOBO	LESSER SUNDA IS	604-10	S08 48.3 E 121 10.5	296°/167NM KUPANG (KPG) VORDME
EGON	LESSER SUNDA IS	604-16	S08 40.1 E 122 27.0	319°/114NM KUPANG (KPG) VORDME
GALUNGGUNG	JAVA	603-14	S07 15.0 E 108 03.0	123°/38NM BANDUNG (BND) VORDME
GAMALAMA	HALMAHERA-INDONESIA	608-06	N00 48.0 E 127 19.3	101°/148NM MANADO (MNO) VORDME
GAMKONORA	HALMAHERA-INDONESIA	608-04	N01 22.3 E 127 31.1	092°/156NM MANADO (MNO) VORDME
GEDE	JAVA	603-06	S06 46.5 E 106 58.5	170°/30NM HALIM (JAKARTA) (HLM) VORDME
GUNTUR	JAVA	603-13	S07 08.5 E 107 49.5	127°/24NM BANDUNG (BND) VORDME
GUNUNG BESAR	SUMATRA	601-25	S04 25.5 E 103 40.1	265°/98NM BANDAR LAMPUNG (TKG) VORDME
GUNUNG RANAKAH	LESSER SUNDA IS	604-071	S08 37.1 E 120 31.1	294°/207NM KUPANG (KPG) VORDME
GUNUNGAPI WETAR	BANDA SEA	605-03	S06 38.3 E 126 39.0	027°/131NM DILI (DIL) VORDME
IBU	HALMAHERA-INDONESIA	608-03	N01 28.5 E 127 37.5	090°/162NM MANADO (MNO) VORDME
IJEN	JAVA	603-35	S08 03.3 E 114 14.3	306°/68NM BALI (DEN PASAR) (BLI) VORDME
ILIBOLENG	LESSER SUNDA IS	604-22	S08 20.3 E 123 15.3	345°/111NM KUPANG (KPG) VORDME
ILIWERUNG	LESSER SUNDA IS	604-25	S08 32.2 E 123 35.2	355°/96NM KUPANG (KPG) VORDME
INIELIKA	LESSER SUNDA IS	604-09	S08 43.5 E 120 58.5	296°/180NM KUPANG (KPG) VORDME
IYA	LESSER SUNDA IS	604-17	S08 52.5 E 121 37.5	295°/140NM KUPANG (KPG) VORDME
KABA	SUMATRA	601-22	S03 31.1 E 102 37.1	251°/128NM PALEMBANG (PLB) VORDME
KELIMUTU	LESSER SUNDA IS	604-14	S08 45.3 E 121 49.5	305°/128NM KUPANG (KPG) VORDME
KELUT	JAVA	603-28	S07 55.5 E 112 18.3	218°/44NM SURABAYA (SBY) VORDME
KERINCI	SUMATRA	601-17	S01 41.3 E 101 16.1	132°/73NM PADANG (PDG) VORDME
KIARABERES-GAGAK	JAVA	603-03	S06 43.5 E 106 39.0	168°/27NM BUDIARTO (BTO) VORDME
KRAKATAU	INDONESIA	602-00	S06 06.1 E 105 25.2	164°/52NM BANDAR LAMPUNG (TKG) VORDME
LAMONGAN	JAVA	603-32	S08 00.0 E 113 20.3	138°/51NM SURABAYA (SBY) VORDME
LEREBOLENG	LESSER SUNDA IS	604-20	S08 21.3 E 122 50.3	333°/117NM KUPANG (KPG) VORDME
LEWOTOBI	LESSER SUNDA IS	604-18	S08 31.5 E 122 46.3	329°/110NM KUPANG (KPG) VORDME
LEWOTOLO	LESSER SUNDA IS	604-23	S08 16.2 E 123 30.2	353°/113NM KUPANG (KPG) VORDME
LOKON-EMPUNG	SULAWESI-INDONESIA	606-10	N01 21.3 E 124 47.3	283°/7NM MANADO (MNO) VORDME
MAHAWU	SULAWESI-INDONESIA	606-11	N01 21.3 E 124 51.3	298°/3NM MANADO (MNO) VORDME
MAKIAN	HALMAHERA-INDONESIA	608-07	N00 19.1 E 127 24.0	110°/161NM MANADO (MNO) VORDME
MARAPI	SUMATRA	601-14	S00 22.5 E 100 28.2	014°/30NM PADANG (PDG) VORDME
MERAPI	JAVA	603-25	S07 32.3 E 110 26.3	026°/17NM YOGYAKARTA (JOG) VORDME
MERBABU	JAVA	603-24	S07 27.0 E 110 25.5	278°/22NM SOLO (SOL) VORDME
NILA	BANDA SEA	605-06	S06 43.5 E 129 30.0	152°/169NM AMBON (PMA) VORDME
PALUWEH	LESSER SUNDA IS	604-15	S08 19.1 E 121 42.3	311°/159NM KUPANG (KPG) VORDME
PAPANDAYAN	JAVA	603-10	S07 19.1 E 107 43.5	152°/29NM BANDUNG (BND) VORDME
PEUET SAGUE	SUMATRA	601-03	N04 55.3 E 096 19.5	260°/56NM LHOK SUKON (LSN) VOR
RAUNG	JAVA	603-34	S08 07.3 E 114 02.3	298°/78NM BALI (DEN PASAR) (BLI) VORDME
RINJANI	LESSER SUNDA IS	604-03	S08 25.1 E 116 28.1	074°/80NM BALI (DEN PASAR) (BLI) VORDME
RUANG	SANGIHE IS-INDONESIA	607-01	N02 16.5 E 125 25.3	033°/52NM MANADO (MNO) VORDME
SALAK	JAVA	603-05	S06 43.1 E 106 43.5	158°/27NM BUDIARTO (BTO) VORDME
SANGEANG API	LESSER SUNDA IS	604-05	S08 10.5 E 119 03.3	187°/189NM HASANUDDIN (UJUNG PANDANG) (MKS) VORDME
SEMERU	JAVA	603-30	S08 06.3 E 112 55.1	168°/45NM SURABAYA (SBY) VORDME
SERUA	BANDA SEA	605-07	S06 18.0 E 130 00.0	141°/192NM AMBON (PMA) VORDME
SIBAYAK	SUMATRA	601-07	N03 12.3 E 098 28.1	205°/19NM MEDAN (MDN) VORDME
SIRUNG	LESSER SUNDA IS	604-27	S08 30.4 E 124 08.5	268°/81NM DILI (DIL) VORDME
SLAMET	JAVA	603-18	S07 14.3 E 109 12.3	255°/70NM ACHMAD YANI (SEMARANG) (ANY) VORDME
SOPUTAN	SULAWESI-INDONESIA	606-03	N01 06.3 E 124 43.3	220°/17NM MANADO (MNO) VORDME
SORIKMARAPI	SUMATRA	601-12	N00 41.1 E 099 32.1	332°/105NM PADANG (PDG) VORDME
SUMBING	JAVA	603-22	S07 22.5 E 110 03.3	328°/29NM YOGYAKARTA (JOG) VORDME
SUMBING	SUMATRA	601-18	S02 25.1 E 101 43.5	139°/123NM PADANG (PDG) VORDME
SUNDORO	JAVA	603-21	S07 18.0 E 109 59.3	227°/29NM ACHMAD YANI (SEMARANG) (ANY) VORDME
SUOH	SUMATRA	601-27	S05 15.0 E 104 16.1	270°/55NM BANDAR LAMPUNG (TKG) VORDME
TALANG	SUMATRA	601-16	S00 58.4 E 100 40.4	108°/20NM PADANG (PDG) VORDME
TAMBORA	LESSER SUNDA IS	604-04	S08 15.0 E 118 00.0	079°/171NM BALI (DEN PASAR) (BLI) VORDME
TANDIKAT	SUMATRA	601-15	S00 25.6 E 100 19.0	356°/26NM PADANG (PDG) VORDME
TANGKUBANPARAHU	JAVA	603-09	S06 46.1 E 107 36.0	037°/8NM BANDUNG (BND) VORDME
TENGGER CALDERA	JAVA	603-31	S07 56.3 E 112 57.0	162°/36NM SURABAYA (SBY) VORDME
TEON	BANDA SEA	605-05	S06 55.1 E 129 07.3	160°/201NM AMBON (PMA) VORDME
TONGKOKO	SULAWESI-INDONESIA	606-13	N01 31.1 E 125 12.0	096°/16NM MANADO (MNO) VORDME
WURLALI	BANDA SEA	605-04	S07 07.3 E 128 40.3	063°/205NM DILI (DIL) VORDME

PHILIPPINES-JAPAN-MARIANAS-SOUTHEAST ASIA

VOLCANO NAME	COUNTRY/STATE REGION	VOLCANO NUMBER	VOLCANO LAT-LONG	RADIAL(MAG BRG) & DISTANCE FROM REFERENCE NAVIGATION AID
ADATARA	HONSHU-JAPAN	803-17	N37 37.1 E 140 16.5	349°/25NM FUKUSHIMA (FKE) VORDME
AGRIGAN	MARIANA IS-C PACIFIC	804-16	N18 46.1 E 145 40.1	007°/322NM NIMITZ (UNZ) VORTAC
AKAGI	HONSHU-JAPAN	803-18	N36 31.5 E 139 10.5	256°/44NM NASU (NZE) VORDME
AKAN	HOKKAIDO-JAPAN	805-07	N43 22.5 E 144 01.1	347°/22NM KUSHIRO (KSE) VORDME
AKITA-KOMAGA-TAKE	HONSHU-JAPAN	803-23	N39 45.0 E 140 48.0	328°/24NM HANAMAKI (HPE) VORDME
AKITA-YAKE-YAMA	HONSHU-JAPAN	803-26	N39 58.1 E 140 46.1	059°/34NM YUWA (AKITA) (UWE) VORDME
ALAMAGAN	MARIANA IS-C PACIFIC	804-18	N17 36.0 E 145 49.5	012°/255NM NIMITZ (UNZ) VORTAC
AOGA-SHIMA	IZU IS-JAPAN	804-06	N32 27.0 E 139 46.1	178°/100NM MIYAKEJIMA (MJE) VORDME
ASAMA	HONSHU-JAPAN	803-11	N36 24.0 E 138 31.5	070°/33NM MATSUMOTO (MBE) VORDME
ASO	KYUSHU-JAPAN	802-11	N32 52.5 E 131 06.0	083°/13NM KUMAMOTO (KUE) VORDME
ASUNCION	MARIANA IS-C PACIFIC	804-15	N19 40.1 E 145 24.0	004°/372NM NIMITZ (UNZ) VORTAC
AZUMA	HONSHU-JAPAN	803-18	N37 43.5 E 140 15.0	196°/27NM ZAO-YAMADA (ZMO) VOR
BABUYAN CLARO	LUZON IS-N OF	704-03	N19 31.2 E 121 56.2	044°/113NM LAOAG (LAO) VORDME
BANDAI	HONSHU-JAPAN	803-19	N37 36.0 E 140 04.5	329°/28NM FUKUSHIMA (FKE) VORDME
BAYONNAISE ROCKS	IZU IS-JAPAN	804-07	N31 55.1 E 139 55.1	178°/133NM MIYAKEJIMA (MJE) VORDME
BILIRAN	PHILIPPINES-C	702-08	N11 31.2 E 124 32.0	133°/33NM MASBATE (MBT) VOR
BUD DAJO	SULU IS-PHILIPPINES	700-01	N05 57.0 E 121 04.1	224°/162NM ZAMBOANGA (ZAM) VORDME
BULUSAN	LUZON-PHILIPPINES	703-01	N12 46.1 E 124 03.0	140°/29NM LEGAZPI (LP) VORDME
CALAYO	MINDANAO-PHILIPPINES	701-02	N07 52.4 E 125 04.1	133°/92NM CAGAYAN DE ORO (CGO) VORDME
CAMIGUIN DE BABUYANE	LUZON IS-N OF	704-01	N18 49.5 E 121 51.4	006°/71NM TUGUEGARAO (TUG) VOR
CANLAON	PHILIPPINES-C	702-02	N10 24.4 E 123 07.6	116°/39NM ILOILO (IOO) VORDME
CHOKAI	HONSHU-JAPAN	803-22	N39 04.5 E 140 01.5	019°/26NM SHONAI (YSE) VORDME
DIDICAS	LUZON IS-N OF	704-02	N19 04.4 E 122 12.1	018°/90NM TUGUEGARAO (TUG) VOR
E-SAN	HOKKAIDO-JAPAN	805-012	N41 48.0 E 141 10.1	091°/15NM HAKODATE (HWE) VORDME
FARALLON DE PAJAROS	MARIANA IS-C PACIFIC	804-14	N20 31.5 E 144 54.0	359°/423NM NIMITZ (UNZ) VORTAC
FUJI	HONSHU-JAPAN	803-03	N35 21.0 E 138 43.5	284°/42NM YOKOSUKA (HYE) VORDME
FUKUJIN	VOLCANO IS-JAPAN	804-133	N21 55.3 E 143 26.3	350°/151NM NIMITZ (UNZ) VORTAC
GUGUAN	MARIANA IS-C PACIFIC	804-19	N17 19.1 E 145 51.0	013°/240NM NIMITZ (UNZ) VORTAC
HACHIJO-JIMA	IZU IS-JAPAN	804-05	N33 07.5 E 139 46.1	173°/60NM MIYAKEJIMA (MJE) VORDME
HAKU-SAN	HONSHU-JAPAN	803-05	N36 09.0 E 136 46.5	135°/23NM KOMATSU (KMC) VORTAC
HIBOK-HIBOK	MINDANAO-PHILIPPINES	701-08	N09 12.1 E 124 40.2	003°/46NM CAGAYAN DE ORO (CGO) VORDME
IBUSUKI VOLCANO FIELD	KYUSHU-JAPAN	802-07	N31 13.1 E 130 34.1	187°/29NM KAGOSHIMA (HKC) VORTAC
ILE DES CENDRES	SE ASIA	705-06	N10 09.3 E 109 00.5	129°/72NM PHANTHIET (PTH) VORDME
IRIGA	LUZON-PHILIPPINES	703-041	N13 27.3 E 123 27.3	319°/24NM LEGAZPI (LP) VORDME
IRIOMOTE-JIMA	RYUKYU IS	802-01	N24 33.3 E 124 00.0	326°/116NM ISHIGAKI (GKE) VORDME
IWAKI	HONSHU-JAPAN	803-27	N40 39.0 E 140 18.0	262°/19NM AOMORI (MRE) VORDME
IWATE	HONSHU-JAPAN	803-24	N39 51.0 E 141 00.0	353°/26NM HANAMAKI (HPE) VORDME
IWO-JIMA	VOLCANO IS-JAPAN	804-12	N24 45.0 E 141 19.5	175°/568NM MIYAKEJIMA (MJE) VORDME
IZU-TOBU	HONSHU-JAPAN	803-01	N34 55.1 E 139 07.1	317°/19NM OSHIMA (XAC) VORTAC
KAITOKU SEAMOUNT	VOLCANO IS-JAPAN	804-10	N26 07.2 E 141 06.1	175°/485NM MIYAKEJIMA (MJE) VORDME
KIKAI	RYUKYU IS	802-06	N30 46.5 E 130 16.5	325°/31NM YAKUSHIMA (YKE) VORDME
KIRISHIMA	KYUSHU-JAPAN	802-09	N31 55.5 E 130 52.1	047°/10NM KAJIKI (KAGOSHIMA) (KGE) VORDME
KITA-IWO-JIMA	VOLCANO IS-JAPAN	804-11	N25 25.5 E 141 13.5	175°/527NM MIYAKEJIMA (MJE) VORDME
KOMAGA-TAKE	HOKKAIDO-JAPAN	805-02	N42 04.1 E 140 40.5	348°/19NM HAKODATE (HWE) VORDME
KUCHINOERABU-JIMA	RYUKYU IS	802-05	N30 25.5 E 130 13.1	283°/23NM YAKUSHIMA (YKE) VORDME
KUJU GROUP	KYUSHU-JAPAN	802-12	N33 04.5 E 131 15.0	256°/24NM OITA (TAE) VORDME
KURIKOMA	HONSHU-JAPAN	803-21	N38 57.0 E 140 46.5	218°/33NM HANAMAKI (HPE) VORDME
KUSATSU-SHIRANE	HONSHU-JAPAN	803-12	N36 37.1 E 138 33.0	054°/41NM MATSUMOTO (MBE) VORDME
KUTTARA	HOKKAIDO-JAPAN	805-034	N42 30.0 E 141 10.5	250°/25NM CHITOSE (CHE) VORDME
MALINAO	LUZON-PHILIPPINES	703-04	N13 25.2 E 123 35.5	335°/18NM LEGAZPI (LP) VORDME
MAYON	LUZON-PHILIPPINES	703-03	N13 15.3 E 123 41.1	339°/6NM LEGAZPI (LP) VORDME
MINAMI-HIYOSHI	VOLCANO IS-JAPAN	804-131	N23 30.3 E 141 54.2	343°/622NM NIMITZ (UNZ) VORTAC
MIYAKE-JIMA	IZU IS-JAPAN	804-04	N34 04.5 E 139 31.5	152°/2NM MIYAKEJIMA (MJE) VORDME
MOUNT PAGAN	MARIANA IS-C PACIFIC	804-17	N18 07.5 E 145 48.0	010°/286NM NIMITZ (UNZ) VORTAC
MOUNT PINATUBO	LUZON-PHILIPPINES	703-083	N15 07.5 E 120 21.0	019°/22NM CUBI (SUBIC BAY) (NCP) VORDME
NAKANO-SHIMA	RYUKYU IS	802-04	N29 51.0 E 129 52.1	237°/52NM YAKUSHIMA (YKE) VORDME
NASU	HONSHU-JAPAN	803-15	N37 07.1 E 139 58.1	356°/26NM NASU (NZE) VORDME
NIIGATA-YAKE-YAMA	HONSHU-JAPAN	803-09	N36 55.1 E 138 01.5	074°/43NM TOYAMA (TOE) VORDME
NIKKO-SHIRANE	HONSHU-JAPAN	803-13	N36 48.0 E 139 22.5	274°/31NM NASU (NZE) VORDME
NIPESOTSU-UPEPESANKE	HOKKAIDO-JAPAN	805-051	N43 27.0 E 143 01.5	126°/28NM ASAHIKAWA (AWE) VORDME
NISHINO-SHIMA	VOLCANO IS-JAPAN	804-092	N27 14.4 E 140 52.4	175°/417NM MIYAKEJIMA (MJE) VORDME
OKINAWA-TORI-SHIMA	RYUKYU IS	802-02	N27 51.0 E 128 15.0	278°/33NM TOKUNOSHIMA (TKE) VORDME
ON-TAKE	HONSHU-JAPAN	803-04	N35 54.0 E 137 28.5	242°/26NM MATSUMOTO (MBE) VORDME
OSHIMA	IZU IS-JAPAN	804-01	N34 43.5 E 139 22.5	311°/2NM OSHIMA (XAC) VORTAC
OSHIMA-OSHIMA	HOKKAIDO-JAPAN	805-01	N41 30.0 E 139 22.1	194°/34NM OKUSHIRI (ORE) VORDME
OSORE-YAMA	HONSHU-JAPAN	803-29	N41 19.1 E 141 04.5	165°/29NM HAKODATE (HWE) VORDME
RAGANG	MINDANAO-PHILIPPINES	701-06	N07 40.1 E 124 30.0	029°/41NM COTABATO (DINAIG) (COT) VORDME
RUBY	MARIANA IS-C PACIFIC	804-201	N15 37.1 E 145 34.1	018°/138NM NIMITZ (UNZ) VORTAC
SAKURA-JIMA	KYUSHU-JAPAN	802-08	N31 34.5 E 130 40.1	051°/15NM KAGOSHIMA (HKC) VORTAC
SHIN-IWO-JIMA	VOLCANO IS-JAPAN	804-13	N24 16.5 E 141 31.1	175°/599NM MIYAKEJIMA (MJE) VORDME
SHIRETOKO-IWO-ZAN	HOKKAIDO-JAPAN	805-09	N44 07.5 E 145 10.1	024°/34NM NAKASHIBETSU (NSE) VORDME
SMITH ROCK	IZU IS-JAPAN	804-08	N31 16.5 E 139 46.1	181°/170NM MIYAKEJIMA (MJE) VORDME
SUPPLY REEF	MARIANA IS-C PACIFIC	804-142	N20 07.5 E 145 06.0	001°/399NM NIMITZ (UNZ) VORTAC
SUWANOSE-JIMA	RYUKYU IS	802-03	N29 31.5 E 129 43.1	011°/65NM AMAMI (ALC) VORTAC
TAAL	LUZON-PHILIPPINES	703-07	N14 00.1 E 120 59.4	288°/8NM LIPA (LIP) VOR
TARUMAI	HOKKAIDO-JAPAN	805-04	N42 40.5 E 141 22.5	273°/13NM CHITOSE (CHE) VORDME
TATE-YAMA	HONSHU-JAPAN	803-08	N36 34.1 E 137 36.0	110°/20NM TOYAMA (TOE) VORDME
TENGCHONG	CHINA-S	705-11	N25 19.1 E 098 28.1	335°/118NM GENGMA (GMA) VORDME
TOKACHI	HOKKAIDO-JAPAN	805-05	N43 25.1 E 142 40.5	155°/17NM ASAHIKAWA (AWE) VORDME
TORI-SHIMA	IZU IS-JAPAN	804-09	N30 28.5 E 140 19.1	175°/221NM MIYAKEJIMA (MJE) VORDME
UNNAMED	TAIWAN-E OF	801-02	N21 49.5 E 121 10.5	109°/20NM HENGCHUN (HCN) VORTAC
UNNAMED	TAIWAN-E OF	801-03	N24 00.0 E 121 49.5	099°/11NM HUALIEN (HLN) VORTAC
UNNAMED	TAIWAN-N OF	801-04	N25 25.1 E 122 19.5	074°/46NM ANPU (TAIPEI) (APU) VORDME
UNNAMED	LUZON IS-N OF	704-05	N20 19.5 E 121 45.0	153°/108NM HENGCHUN (HCN) VORTAC
UNZEN	KYUSHU-JAPAN	802-10	N32 45.0 E 130 18.0	122°/11NM NAGASAKI (OLE) VORDME
USU	HOKKAIDO-JAPAN	805-03	N42 31.5 E 140 49.5	263°/39NM CHITOSE (CHE) VORDME
YAKE-DAKE	HONSHU-JAPAN	803-07	N36 13.1 E 137 34.5	290°/17NM MATSUMOTO (MBE) VORDME
ZAO	HONSHU-JAPAN	803-19	N38 09.0 E 140 27.0	062°/13NM ZAO-YAMADA (ZMO) VOR
ZENGYU	TAIWAN-N OF	801-05	N26 10.5 E 122 27.3	043°/78NM ANPU (TAIPEI) (APU) VORDME

MAINLAND ASIA-KURILES-KAMCHATKA PENINSULA

VOLCANO NAME	COUNTRY/STATE REGION	VOLCANO NUMBER	VOLCANO LAT-LONG	RADIAL(MAG BRG) & DISTANCE FROM REFERENCE NAVIGATION AID
ALAID	KURIL IS	900-39	N50 48.0 E 155 30.0	050°/610NM NAKASHIBETSU (NSE) VORDME
ANJUISKY	RUSSIA-NE	1001-02	N67 10.1 E 165 12.0	286°/639NM KUKULIAK (SAVOONGA) (ULL) VORTAC
ATSONUPURI	KURIL IS	900-05	N44 49.1 E 147 07.3	059°/119NM NAKASHIBETSU (NSE) VORDME
AVACHINSKY	KAMCHATKA PENINSULA	1000-10	N53 15.0 E 158 51.0	276°/551NM SHEMYA (SYA) VORTAC
BAITOUSHAN	CHINA-E	1005-07	N41 58.5 E 128 04.5	140°/171NM CHANGCHUN (CGQ) VORDME
BALAGAN-TAS	RUSSIA-NE	1001-03	N66 25.5 E 143 43.5	285°/1148NM KUKULIAK (SAVOONGA) (ULL) VORTAC
BARANSKY	KURIL IS	900-08	N45 06.0 E 148 01.5	061°/161NM NAKASHIBETSU (NSE) VORDME
BEZYMIANNY	KAMCHATKA PENINSULA	1000-25	N55 58.1 E 160 36.0	294°/510NM SHEMYA (SYA) VORTAC
CHIKURACHKI-TATARINO	KURIL IS	900-32	N50 19.3 E 155 27.3	052°/591NM NAKASHIBETSU (NSE) VORDME
CHIRINKOTAN	KURIL IS	900-26	N48 58.5 E 153 28.5	054°/485NM NAKASHIBETSU (NSE) VORDME
CHIRIP PENINSULA GROUP	KURIL IS	900-09	N45 22.5 E 147 55.1	057°/167NM NAKASHIBETSU (NSE) VORDME
CHIRPOI	KURIL IS	900-15	N46 31.3 E 150 52.3	061°/318NM NAKASHIBETSU (NSE) VORDME
EBEKO	KURIL IS	900-36	N50 40.1 E 155 55.5	051°/619NM NAKASHIBETSU (NSE) VORDME
EKARMA	KURIL IS	900-27	N48 57.0 E 153 56.3	055°/493NM NAKASHIBETSU (NSE) VORDME
FUSS PEAK	KURIL IS	900-34	N50 13.1 E 155 12.0	051°/579NM NAKASHIBETSU (NSE) VORDME
GOLOVNIN	KURIL IS	900-01	N43 49.1 E 145 33.0	069°/29NM NAKASHIBETSU (NSE) VORDME
GORELY	KAMCHATKA PENINSULA	1000-07	N52 33.3 E 158 01.5	272°/584NM SHEMYA (SYA) VORTAC
GORIASCHAIA SOPKA	KURIL IS	900-17B	N49 46.5 E 154 45.0	062°/348NM NAKASHIBETSU (NSE) VORDME
GROZNY GROUP	KURIL IS	900-07	N45 01.1 E 147 52.1	063°/152NM NAKASHIBETSU (NSE) VORDME
HARIMKOTAN	KURIL IS	900-30	N49 07.1 E 154 30.5	055°/532NM NAKASHIBETSU (NSE) VORDME
ILYINSKY	KAMCHATKA PENINSULA	1000-03	N51 30.0 E 157 12.0	267°/626NM SHEMYA (SYA) VORTAC
KARPINSKY GROUP	KURIL IS	900-35	N50 09.0 E 155 22.1	052°/581NM NAKASHIBETSU (NSE) VORDME
KARYMSKY	KAMCHATKA PENINSULA	1000-13	N54 04.5 E 159 25.5	282°/533NM SHEMYA (SYA) VORTAC
KETOI	KURIL IS	900-20	N47 21.0 E 152 28.3	060°/389NM NAKASHIBETSU (NSE) VORDME
KIKHPINYCH	KAMCHATKA PENINSULA	1000-18	N54 28.5 E 160 15.3	284°/504NM SHEMYA (SYA) VORTAC
KIZIMEN	KAMCHATKA PENINSULA	1000-23	N55 10.1 E 160 31.5	289°/501NM SHEMYA (SYA) VORTAC
KLIUCHEVSKOI	KAMCHATKA PENINSULA	1000-26	N56 03.3 E 160 38.2	295°/510NM SHEMYA (SYA) VORTAC
KOLOKOL GROUP	KURIL IS	900-12	N46 03.0 E 150 03.3	063°/263NM NAKASHIBETSU (NSE) VORDME
KORYAKSKY	KAMCHATKA PENINSULA	1000-09	N53 19.1 E 158 43.1	276°/556NM SHEMYA (SYA) VORTAC
KOSHELEV	KAMCHATKA PENINSULA	1000-02	N51 21.0 E 156 45.3	266°/645NM SHEMYA (SYA) VORTAC
KRASHENINNIKOV	KAMCHATKA PENINSULA	1000-19	N54 36.0 E 160 16.5	285°/503NM SHEMYA (SYA) VORTAC
KRONOTSKY	KAMCHATKA PENINSULA	1000-20	N54 45.0 E 160 31.5	286°/496NM SHEMYA (SYA) VORTAC
KSUDACH	KAMCHATKA PENINSULA	1000-05	N51 48.0 E 157 31.5	268°/610NM SHEMYA (SYA) VORTAC
KUNLUN VOLCANO GROUP	CHINA-W	1004-03	N35 31.1 E 080 12.0	137°/224NM SHACHE (SCH) VORDME
LONGGANG GROUP	CHINA-E	1005-06	N42 19.5 E 126 30.0	157°/110NM CHANGCHUN (CGQ) VORDME
MALY SEMIACHIK	KAMCHATKA PENINSULA	1000-14	N54 07.5 E 159 40.5	282°/522NM SHEMYA (SYA) VORTAC
MEDVEZHIA	KURIL IS	900-10	N45 22.5 E 148 48.0	064°/197NM NAKASHIBETSU (NSE) VORDME
MENDELEEV	KURIL IS	900-03	N43 58.5 E 145 43.5	067°/37NM NAKASHIBETSU (NSE) VORDME
MUTNOVSKY	KAMCHATKA PENINSULA	1000-06	N52 27.0 E 158 12.0	271°/583NM SHEMYA (SYA) VORTAC
NEMO PEAK	KURIL IS	900-32	N49 34.1 E 154 48.3	054°/543NM NAKASHIBETSU (NSE) VORDME
OPALA	KAMCHATKA PENINSULA	1000-08	N52 32.4 E 157 20.1	272°/610NM SHEMYA (SYA) VORTAC
PREVO PEAK	KURIL IS	900-19	N47 01.1 E 152 07.1	062°/367NM NAKASHIBETSU (NSE) VORDME
RAIKOKE	KURIL IS	900-25	N48 15.0 E 153 15.0	057°/446NM NAKASHIBETSU (NSE) VORDME
RASSHUA	KURIL IS	900-23	N47 46.1 E 153 01.1	059°/422NM NAKASHIBETSU (NSE) VORDME
SARYCHEV PEAK	KURIL IS	900-24	N48 05.1 E 153 12.0	058°/439NM NAKASHIBETSU (NSE) VORDME
SHEVELUCH	KAMCHATKA PENINSULA	1000-27	N56 39.0 E 161 21.0	300°/500NM SHEMYA (SYA) VORTAC
SINARKA	KURIL IS	900-29	N48 52.5 E 154 10.3	055°/498NM NAKASHIBETSU (NSE) VORDME
TAO-RUSYR CALDERA	KURIL IS	900-31	N49 21.3 E 154 42.3	054°/532NM NAKASHIBETSU (NSE) VORDME
TIATIA	KURIL IS	900-02	N44 21.0 E 146 15.0	058°/72NM NAKASHIBETSU (NSE) VORDME
TOLBACHIK	KAMCHATKA PENINSULA	1000-24	N55 49.5 E 160 19.5	293°/516NM SHEMYA (SYA) VORTAC
UNNAMED	KURIL IS	900-16	N46 30.0 E 151 00.0	062°/331NM NAKASHIBETSU (NSE) VORDME
UNNAMED	KURIL IS	900-29	N48 52.5 E 153 19.5	058°/443NM NAKASHIBETSU (NSE) VORDME
USHISHIR CALDERA	KURIL IS	900-21	N47 31.1 E 152 49.1	060°/407NM NAKASHIBETSU (NSE) VORDME
USHKOVSKY	KAMCHATKA PENINSULA	1000-261	N56 07.1 E 160 31.1	295°/515NM SHEMYA (SYA) VORTAC
VEER	KAMCHATKA PENINSULA	1000-102	N53 09.0 E 158 19.5	278°/560NM SHEMYA (SYA) VORTAC
WUDALIANCHI	CHINA-E	1005-04	N48 43.1 E 126 07.1	016°/292NM CHANGCHUN (CGQ) VORDME
XIANJINDAO	KOREA	1006-01	N41 19.5 E 128 00.0	049°/165NM PYONGYANG (SUNAN) (GK) VORDME
ZAVARITZKI CALDERA	KURIL IS	900-18	N46 55.3 E 151 57.0	062°/360NM NAKASHIBETSU (NSE) VORDME
ZHELTOVSKY	KAMCHATKA PENINSULA	1000-01	N51 34.1 E 157 19.5	267°/623NM SHEMYA (SYA) VORTAC
ZHUPANOVSKY	KAMCHATKA PENINSULA	1000-12	N53 35.2 E 159 08.5	278°/540NM SHEMYA (SYA) VORTAC

ALEUTIANS-PACIFIC-NORTH AMERICA

VOLCANO NAME	COUNTRY/STATE REGION	VOLCANO NUMBER	VOLCANO LAT-LONG	RADIAL(MAG BRG) & DISTANCE FROM REFERENCE NAVIGATION AID
AKUTAN	ALEUTIAN IS	1101-32	N54 07.5 W165 58.1	222°/130NM COLD BAY (CDB) VORTAC
AMAK	ALEUTIAN IS	1101-39	N55 25.1 W163 09.0	288°/15NM COLD BAY (CDB) VORTAC
AMUKTA	ALEUTIAN IS	1101-19	N52 30.0 W171 15.0	227°/343NM COLD BAY (CDB) VORTAC
ANIAKCHAK	ALASKA PENINSULA	1102-09	N56 52.5 W158 09.0	181°/119NM KING SALMON (AKN) VORTAC
ATKA	ALEUTIAN IS	1101-16	N52 22.5 W174 09.0	085°/431NM SHEMYA (SYA) VORTAC
AUGUSTINE	ALASKA-SW	1103-01	N59 22.1 W153 25.1	228°/63NM HOMER (HOM) VORTAC
BOGOSLOF	ALEUTIAN IS	1101-30	N53 55.5 W168 01.5	231°/200NM COLD BAY (CDB) VORTAC
CARLISLE	ALEUTIAN IS	1101-23	N52 54.0 W170 03.0	227°/293NM COLD BAY (CDB) VORTAC
CHIGINAGAK	ALASKA PENINSULA	1102-11	N57 07.5 W157 00.0	163°/96NM KING SALMON (AKN) VORTAC
CLEVELAND	ALEUTIAN IS	1101-24	N52 49.1 W169 57.0	225°/293NM COLD BAY (CDB) VORTAC
FISHER	ALEUTIAN IS	1101-35	N54 40.1 W164 21.0	220°/65NM COLD BAY (CDB) VORTAC
GARELOI	ALEUTIAN IS	1101-07	N51 46.5 W178 48.0	096°/269NM SHEMYA (SYA) VORTAC
GLACIER PEAK	USA-WASHINGTON	1201-02	N48 06.4 W121 06.5	027°/63NM SEATTLE (SEA) VORTAC
GREAT SITKIN	ALEUTIAN IS	1101-12	N52 04.5 W176 07.5	089°/362NM SHEMYA (SYA) VORTAC
HALEAKALA	HAWAIIAN IS	1302-06	N20 42.3 W156 15.0	127°/15NM MAUI (KAHULUI) (OGG) VORTAC
HUALALAI	HAWAIIAN IS	1302-04	N19 41.3 W155 52.1	064°/9NM KONA (KAILUA-KONA) (IAI) VORTAC
ILIAMNA	ALASKA-SW	1103-02	N60 01.5 W153 04.5	268°/52NM HOMER (HOM) VORTAC
ISANOTSKI	ALEUTIAN IS	1101-37	N54 45.0 W163 43.5	210°/45NM COLD BAY (CDB) VORTAC
ISKUT-UNUK RIVER GROUP	CANADA	1200-10	N56 34.5 W130 33.0	056°/84NM LEVEL ISLAND (LVD) VORDME
KAGAMIL	ALEUTIAN IS	1101-26	N52 58.1 W169 43.1	226°/281NM COLD BAY (CDB) VORTAC
KANAGA	ALEUTIAN IS	1101-11	N51 55.1 W177 10.1	092°/326NM SHEMYA (SYA) VORTAC
KASATOCHI	ALEUTIAN IS	1101-13	N52 10.5 W175 30.0	087°/384NM SHEMYA (SYA) VORTAC
KATMAI	ALASKA PENINSULA	1102-17	N58 16.1 W154 58.5	094°/82NM KING SALMON (AKN) VORTAC
KILAUEA	HAWAIIAN IS	1302-01	N19 25.3 W155 17.3	211°/23NM HILO (ITO) VORTAC
KISKA	ALEUTIAN IS	1101-02	N52 06.0 E 177 36.0	101°/135NM SHEMYA (SYA) VORTAC
KUPREANOF	ALASKA PENINSULA	1102-06	N56 01.1 W159 48.0	047°/110NM COLD BAY (CDB) VORTAC
LASSEN	USA-CALIFORNIA	1203-07	N40 29.3 W121 30.3	036°/40NM RED BLUFF (RBL) VORTAC
LITTLE SITKIN	ALEUTIAN IS	1101-05	N51 57.0 E 178 31.5	100°/170NM SHEMYA (SYA) VORTAC
MACDONALD	PACIFIC-C	1303-07	S28 58.5 W140 15.0	176°/435NM MURUROA (MRA) VORDME
MAGEIK	ALASKA PENINSULA	1102-15	N58 12.0 W155 15.0	106°/69NM KING SALMON (AKN) VORTAC
MAKUSHIN	ALEUTIAN IS	1101-31	N53 54.0 W166 55.5	225°/166NM COLD BAY (CDB) VORTAC
MARTIN	ALASKA PENINSULA	1102-14	N58 10.1 W155 21.0	105°/55NM KING SALMON (AKN) VORTAC
MAUNA LOA	HAWAIIAN IS	1302-02	N19 28.3 W155 36.3	103°/25NM KONA (KAILUA-KONA) (IAI) VORTAC
MEDICINE LAKE	USA-CALIFORNIA	1203-02	N41 34.5 W121 34.1	151°/35NM KLAMATH FALLS (LMT) VORTAC
MONO LAKE VOLCANO FIELD	USA-CALIFORNIA	1203-11	N38 00.0 W119 01.5	217°/58NM MINA (MVA) VORTAC
MOUNT BAKER	USA-WASHINGTON	1201-01	N48 47.1 W121 49.1	087°/31NM BELLINGHAM (BLI) VORTAC
MOUNT HOOD	USA-OREGON	1202-01	N45 22.3 W121 41.4	210°/32NM KLICKITAT (THE DALLES) (LTJ) VORTAC
MOUNT RAINIER	USA-WASHINGTON	1201-03	N46 51.1 W121 45.3	124°/40NM SEATTLE (SEA) VORTAC
MOUNT SHASTA	USA-CALIFORNIA	1203-01	N41 25.1 W122 12.0	188°/48NM KLAMATH FALLS (LMT) VORTAC
MOUNT ST HELENS	USA-WASHINGTON	1201-05	N46 12.0 W122 10.5	011°/32NM BATTLE GROUND (BTG) VORTAC
MOUNT WRANGELL	ALASKA-E	1105-02	N62 00.0 W144 01.1	074°/41NM GULKANA (GKN) VORTAC
NOVARUPTA KATMAI	ALASKA PENINSULA	1102-18	N58 16.1 W155 09.4	096°/57NM KING SALMON (AKN) VORTAC
OKMOK	ALEUTIAN IS	1101-29	N53 25.1 W168 07.5	224°/218NM COLD BAY (CDB) VORTAC
PAVLOF	ALASKA PENINSULA	1102-03	N55 25.1 W161 54.0	055°/31NM COLD BAY (CDB) VORTAC
PAVLOF SISTER	ALASKA PENINSULA	1102-04	N55 27.0 W161 52.1	053°/32NM COLD BAY (CDB) VORTAC
PROSPECT PEAK	USA-CALIFORNIA	1203-08	N40 33.0 W121 19.1	039°/50NM RED BLUFF (RBL) VORTAC
REDOUBT	ALASKA-SW	1103-03	N60 28.5 W152 45.0	235°/46NM KENAI (ENA) VORDME
SEGUAM	ALEUTIAN IS	1101-18	N52 19.1 W172 31.1	229°/388NM COLD BAY (CDB) VORTAC
SEMISOPOCHNOI	ALEUTIAN IS	1101-06	N51 55.5 E 179 36.0	097°/200NM SHEMYA (SYA) VORTAC
SHISHALDIN	ALEUTIAN IS	1101-36	N54 45.0 W163 58.1	216°/51NM COLD BAY (CDB) VORTAC
SOUTH SISTER	USA-OREGON	1202-06	N44 06.0 W121 46.1	227°/22NM DESCHUTES (REDMOND) (DSD) VORTAC
SPURR	ALASKA-SW	1103-04	N61 18.0 W152 15.0	298°/51NM KENAI (ENA) VORDME
TANAGA	ALEUTIAN IS	1101-08	N51 52.5 W178 07.5	093°/291NM SHEMYA (SYA) VORTAC
TRIDENT	ALASKA PENINSULA	1102-16	N58 13.5 W155 04.5	097°/60NM KING SALMON (AKN) VORTAC
TSEAX RIVER CONE	CANADA	1200-12	N55 07.1 W128 54.0	273°/87NM HOUSTON (SMITHERS) (YYD) VORDME
UGASHIK-PEULIK	ALASKA PENINSULA	1102-13A	N57 45.0 W156 22.1	147°/59NM KING SALMON (AKN) VORTAC
UKINREK MAARS	ALASKA PENINSULA	1102-13B	N57 49.5 W156 31.1	151°/54NM KING SALMON (AKN) VORTAC
UNNAMED	HAWAIIAN IS	1302-09	N22 34.5 W163 49.5	282°/258NM SOUTH KAUAI (SOK) VORTAC
UNNAMED	PACIFIC-C	1303-01	N09 49.1 W104 18.0	207°/456NM ACAPULCO (ACA) VORDME
UNNAMED	PACIFIC-N	1301-01	N46 31.1 W129 34.5	246°/225NM HOQUIAM (HQM) VORTAC
UNNAMED	PACIFIC-N	1301-02	N45 01.5 W130 12.0	259°/263NM NEWPORT (ONP) VORTAC
VENIAMINOF	ALASKA PENINSULA	1102-07	N56 10.1 W159 22.5	046°/127NM COLD BAY (CDB) VORTAC
VSEVIDOF	ALEUTIAN IS	1101-27	N53 07.5 W168 40.5	223°/244NM COLD BAY (CDB) VORTAC
WESTDAHL	ALEUTIAN IS	1101-34	N54 30.0 W164 39.0	218°/79NM COLD BAY (CDB) VORTAC
YUNASKA	ALEUTIAN IS	1101-22	N52 37.5 W170 37.5	226°/328NM COLD BAY (CDB) VORTAC

MEXICO-CENTRAL AMERICA

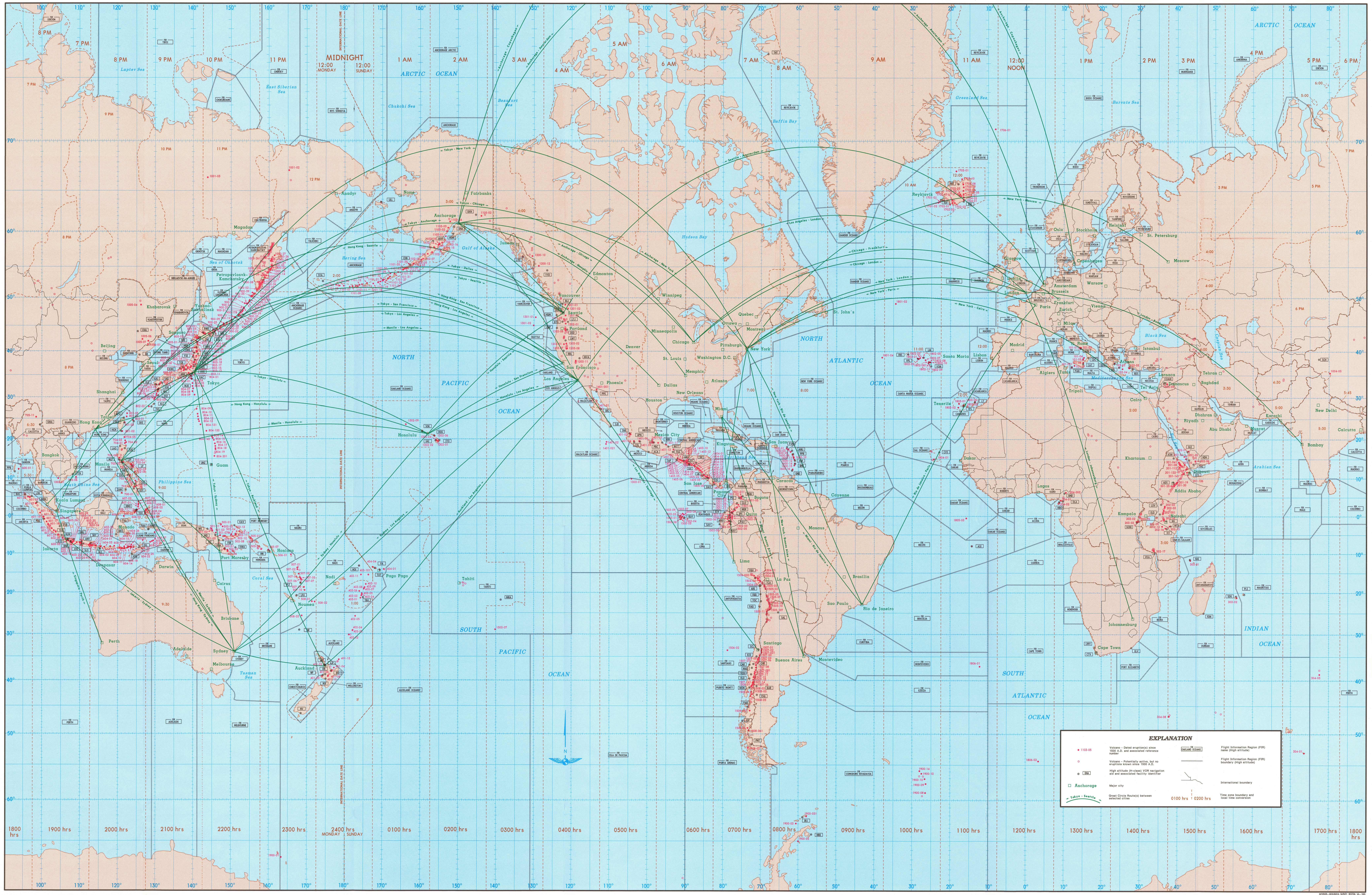
VOLCANO NAME	COUNTRY/STATE REGION	VOLCANO NUMBER	VOLCANO LAT-LONG	RADIAL(MAG BRG) & DISTANCE FROM REFERENCE NAVIGATION AID
ACATENANGO	GUATEMALA	1402-08	N14 30.0 W090 52.3	251°/20NM LA AURORA (GUAT. CITY) (AUR) VORDME
ALMOLONGA	GUATEMALA	1402-04	N14 49.1 W091 28.5	083°/52NM TAPACHULA (TAP) VORDME
ARENAL	COSTA RICA	1405-033	N10 27.5 W084 42.1	313°/39NM EL COCO (SAN JOSE) (TIO) VORDME
ATITLAN	GUATEMALA	1402-06	N14 34.6 W091 11.1	265°/38NM LA AURORA (GUAT. CITY) (AUR) VORDME
BARCENA	MEXICO-IS	1401-02	N19 18.0 W110 49.1	185°/238NM CABOS (SAN JOSE DEL CABO) (SJD) VORDME
BARU	PANAMA	1407-01	N08 48.0 W082 33.3	342°/25NM DAVID (DAV) VORDME
BARVA	COSTA RICA	1405-05	N10 08.1 W084 06.0	039°/12NM EL COCO (SAN JOSE) (TIO) VORDME
CERRO NEGRO	NICARAGUA	1404-07	N12 30.2 W086 42.1	157°/96NM TONCONTIN (TEGUCIGALPA) (TNT) VORDME
COLIMA VOLCANO COMPLEX	MEXICO	1401-04	N19 30.5 W103 37.1	342°/14NM COLIMA (COL) VORDME
CONCEPCION	NICARAGUA	1404-12	N11 32.2 W085 37.2	353°/56NM LIBERIA (LIB) VORDME
CONCHAGUITA	EL SALVADOR	1403-12	N13 13.1 W087 45.5	209°/57NM TONCONTIN (TEGUCIGALPA) (TNT) VORDME
COSIGUINA	NICARAGUA	1404-01	N12 58.5 W087 34.1	193°/65NM TONCONTIN (TEGUCIGALPA) (TNT) VORDME
EL CHICHON	MEXICO	1401-12	N17 21.4 W093 13.4	005°/36NM TUXTLA (TUXTLA GUTIERREZ) (TGZ) VORDME
FUEGO	GUATEMALA	1402-09	N14 28.2 W090 52.5	247°/21NM LA AURORA (GUAT. CITY) (AUR) VORDME
ILOPANGO	EL SALVADOR	1403-06	N13 40.2 W089 03.1	101°/3NM ILOPANGO (SAN SALVADOR) (YSV) VORDME
IRAZU	COSTA RICA	1405-06	N09 58.4 W083 51.1	087°/22NM EL COCO (SAN JOSE) (TIO) VORDME
IZALCO	EL SALVADOR	1403-03	N13 48.5 W089 37.6	280°/31NM ILOPANGO (SAN SALVADOR) (YSV) VORDME
LA YEGUADA	PANAMA	1406-02	N08 31.2 W080 54.4	001°/26NM SANTIAGO (STG) VOR
LAGUNA VERDE	EL SALVADOR	1403-02	N13 53.3 W089 47.1	287°/40NM ILOPANGO (SAN SALVADOR) (YSV) VORDME
LAS PILAS	NICARAGUA	1404-08	N12 29.4 W086 41.2	156°/96NM TONCONTIN (TEGUCIGALPA) (TNT) VORDME
MASAYA	NICARAGUA	1404-10	N11 59.0 W086 09.4	334°/90NM LIBERIA (LIB) VORDME
MICHOACAN-GUANAJUATO	MEXICO	1401-06	N19 28.5 W102 15.0	285°/12NM URUAPAN (UPN) VORDME
MIRAVALLES	COSTA RICA	1405-03	N10 44.5 W085 09.1	066°/25NM LIBERIA (LIB) VORDME
MOMOTOMBO	NICARAGUA	1404-09	N12 25.2 W086 32.2	154°/97NM TONCONTIN (TEGUCIGALPA) (TNT) VORDME
PACAYA	GUATEMALA	1402-11	N14 22.5 W090 36.0	194°/12NM LA AURORA (GUAT. CITY) (AUR) VORDME
PICO DE ORIZABA	MEXICO	1401-10	N19 01.5 W097 16.1	256°/61NM VERACRUZ (VER) VORDME
PINACATE PEAKS	MEXICO	1401-001	N31 46.2 W113 29.5	349°/25NM PENASCO (PUNTA PENASCO) (PPE) VORDME
POAS	COSTA RICA	1405-04	N10 12.0 W084 13.6	358°/12NM EL COCO (SAN JOSE) (TIO) VORDME
POPOCATEPETL	MEXICO	1401-09	N19 01.0 W098 37.2	233°/16NM PUEBLA (PBC) VORDME
RINCON DE LA VIEJA	COSTA RICA	1405-02	N10 49.5 W085 19.3	041°/19NM LIBERIA (LIB) VORDME
SAN CRISTOBAL	NICARAGUA	1404-02	N12 42.1 W087 00.1	166°/80NM TONCONTIN (TEGUCIGALPA) (TNT) VORDME
SAN MIGUEL	EL SALVADOR	1403-10	N13 25.5 W088 16.2	087°/45NM EL SALVADOR (SAN SALVADOR) (ESL) VORDME
SAN SALVADOR	EL SALVADOR	1403-04	N13 44.1 W089 17.3	282°/10NM ILOPANGO (SAN SALVADOR) (YSV) VORDME
SANTA ANA	EL SALVADOR	1403-01	N13 51.1 W089 37.5	282°/29NM ILOPANGO (SAN SALVADOR) (YSV) VORDME
SANTA MARIA	GUATEMALA	1402-03	N14 45.3 W091 33.1	087°/47NM TAPACHULA (TAP) VORDME
SOCORRO	MEXICO-IS	1401-021	N18 46.5 W110 57.0	185°/269NM CABOS (SAN JOSE DEL CABO) (SJD) VORDME
TACANA	MEXICO	1402-01	N15 07.5 W092 06.5	032°/25NM TAPACHULA (TAP) VORDME
TELICA	NICARAGUA	1404-04	N12 36.0 W086 50.4	161°/88NM TONCONTIN (TEGUCIGALPA) (TNT) VORDME
TRES VIRGENES	MEXICO	1401-01	N27 28.1 W112 35.3	290°/19NM ROSALIA (SANTA ROSALIA) (SRL) VORDME
TURRIALBA	COSTA RICA	1405-07	N10 01.5 W083 46.1	081°/27NM EL COCO (SAN JOSE) (TIO) VORDME
VOLCANO CEBORUCO	MEXICO	1401-03	N21 07.3 W104 30.0	124°/25NM TEPIC (TNY) VORDME
VOLCANO DE SAN MARTIN	MEXICO	1401-11	N18 34.2 W095 10.1	304°/43NM MINATITLAN (MTT) VORDME

SOUTH AMERICA-CARIBBEAN

VOLCANO NAME	COUNTRY/STATE REGION	VOLCANO NUMBER	VOLCANO LAT-LONG	RADIAL(MAG BRG) & DISTANCE FROM REFERENCE NAVIGATION AID
ANTISANA	ECUADOR	1502-03	S00 28.5 W078 08.3	026°/53NM AMBATO (AMV) VORDME
ANTUCO	CHILE-C	1507-08	S37 24.2 W071 20.6	082°/51NM LOS ANGELES (MAD) VOR
ARACAR	ARGENTINA	1505-107	S24 16.1 W067 46.1	288°/130NM SALTA (SAL) VORDME
CALBUCO	CHILE-S	1508-02	S41 19.3 W072 36.5	062°/22NM PUERTO MONTT (MON) VORDME
CALLAQUI	CHILE-C	1507-081	S37 55.1 W071 27.0	116°/25NM LOS ANGELES (MAD) VOR
CARRAN-LOS VENADOS	CHILE-C	1507-14	S40 21.0 W072 04.1	309°/62NM SAN CARLOS DE BARILOCHE (BAR) VOR
CERRO AZUL	GALAPAGOS	1503-06	S00 54.0 W091 25.1	241°/75NM GALAPAGOS (ISLA BALTRA) (GLV) VORDME
CERRO AZUL QUIZAPU	CHILE-C	1507-06	S35 39.1 W070 45.4	[illegible]
CERRO BRAVO	COLOMBIA	1501-011	N05 05.3 W075 18.0	265°/23NM MARIQUITA (MQU) VOR
CERRO HUDSON	CHILE-S	1508-057	S45 54.0 W072 58.1	[illegible]
CERRO YANTELES	CHILE-S	1508-051	S43 25.1 W072 49.5	235°/82NM ESQUEL (ESQ) VOR
CHACANA	ECUADOR	1502-022	S00 22.5 W078 15.0	018°/56NM AMBATO (AMV) VORDME
COPAHUE	CHILE-C	1507-09	S37 51.0 W071 10.1	067°/56NM LOS ANGELES (MAD) VOR
CORCOVADO	CHILE-S	1508-06	S43 10.5 W072 48.0	245°/76NM ESQUEL (ESQ) VOR
CORDON CAULLE	CHILE-C	1507-141	S40 31.1 W072 12.0	298°/55NM SAN CARLOS DE BARILOCHE (BAR) VOR
COTOPAXI	ECUADOR	1502-05	S00 40.4 W078 26.1	010°/36NM AMBATO (AMV) VORDME
CUMBAL	COLOMBIA	1501-10	N00 58.5 W077 52.5	222°/64NM IPIALES (IPI) VOR
DESCABEZADO GRANDE	CHILE-C	1507-05	S35 34.5 W070 45.0	[illegible]
DONA JUANA	COLOMBIA	1501-06	N01 30.1 W076 55.1	142°/23NM MERCADERES (MER) VOR
EL MISTI	PERU	1504-01	S16 17.4 W071 24.3	078°/11NM AREQUIPA (EQU) VORDME
FERNANDINA	GALAPAGOS	1503-01	S00 22.1 W091 33.0	265°/76NM GALAPAGOS (ISLA BALTRA) (GLV) VORDME
GALERAS	COLOMBIA	1501-08	N01 13.1 W077 22.1	040°/28NM IPIALES (IPI) VOR
GUAGUA PICHINCHA	ECUADOR	1502-02	S00 10.1 W078 35.5	357°/65NM AMBATO (AMV) VORDME
GUALLATIRI	CHILE-N	1505-02	S18 25.1 W069 10.1	107°/67NM TACNA (TCA) VORDME
HUAYNAPUTINA	PERU	1504-03	S16 36.3 W070 51.0	111°/44NM AREQUIPA (EQU) VORDME
HUEQUI	CHILE-S	1508-03	S42 22.4 W072 34.4	146°/61NM PUERTO MONTT (MON) VORDME
HUILA	COLOMBIA	1501-05	N02 55.1 W076 03.0	144°/46NM CALI (CLO) VORDME
ISLUGA	CHILE-N	1505-04	S19 09.0 W068 49.5	119°/98NM ARICA (ARI) VORDME
KICK-'EM-JENNY	W INDIES	1600-16	N12 18.0 W061 37.5	[illegible] POINT SALINES (ST GEORGE'S) (GND) VORDME
LASCAR	CHILE-N	1505-10	S23 22.1 W067 43.5	120°/148NM TOCOPILLA (TOC) VOR
LAUTARO	CHILE-S	1508-06	S49 01.1 W073 33.0	128°/95NM ISLOTE SAN PEDRO (ISP) VORDME
LLAIMA	CHILE-C	1507-11	S38 41.3 W071 43.4	074°/42NM TEMUCO (TCO) VORDME
LLULLAILLACO	CHILE-N	1505-11	S24 43.1 W068 31.5	125°/129NM ANTOFAGASTA (FAG) VORDME
LONQUIMAY	CHILE-C	1507-10	S38 22.4 W071 34.5	055°/54NM TEMUCO (TCO) VORDME
MAIPO	CHILE-C	1507-021	S34 09.4 W069 49.6	127°/58NM LOS CERRILLOS (SANTIAGO) (SCL) VORDME
MARCHENA	GALAPAGOS	1503-08	N00 19.5 W090 28.1	338°/47NM GALAPAGOS (ISLA BALTRA) (GLV) VORDME
MICOTRIN	W INDIES	1600-10	N15 19.5 W061 19.5	352°/47NM FORT DE FRANCE (FOF) VORDME
MINCHINMAVIDA	CHILE-S	1508-04	S42 46.5 W072 25.5	264°/58NM ESQUEL (ESQ) VOR
MOCHO-CHOSHUENCO	CHILE-C	1507-13	S39 55.4 W072 01.4	098°/52NM VALDIVIA (VLD) VORDME
MONTAGNE PELEE	W INDIES	1600-12	N14 49.1 W061 10.1	342°/16NM FORT DE FRANCE (FOF) VORDME
MONTE BURNEY	CHILE-S	1508-07	S52 19.5 W073 24.0	207°/49NM PUERTO NATALES (PNT) VORDME
MORNE PATATES	W INDIES	1600-15	N15 13.1 W061 22.1	346°/42NM FORT DE FRANCE (FOF) VORDME
MOUNT LIAMUIGA	W INDIES	1600-03	N17 22.1 W062 48.0	167°/43NM SAINT MAARTEN (PJM) VORDME
NEGRO DE MAYASQUER	COLOMBIA	1501-11	N00 49.4 W077 57.5	263°/17NM IPIALES (IPI) VOR
NEVADOS DE CHILLAN	CHILE-C	1507-07	S36 51.5 W071 22.4	109°/35NM CHILLAN (CHI) VORDME
OLCA-PARUMA	CHILE-N	1505-05	S20 55.5 W068 28.5	109°/100NM IQUIQUE (IQQ) VORDME
OSORNO	CHILE-S	1508-01	S41 06.0 W072 29.4	042°/33NM PUERTO MONTT (MON) VORDME
PINTA	GALAPAGOS	1503-07	N00 34.5 W090 45.0	328°/67NM GALAPAGOS (ISLA BALTRA) (GLV) VORDME
PLANCHON-PETEROA	CHILE-C	1507-04	S35 14.2 W070 34.1	110°/35NM CURICO (ICO) VORDME
PUNTIGUIDO-CORDON CEN	CHILE-C	1507-16	S40 48.1 W072 15.5	282°/52NM SAN CARLOS DE BARILOCHE (BAR) VOR
PURACE	COLOMBIA	1501-06	N02 18.0 W076 24.0	055°/55NM MERCADERES (MER) VOR
PUTANA	CHILE-N	1505-09	S22 34.1 W067 52.1	102°/124NM TOCOPILLA (TOC) VOR
QUALIBOU	W INDIES	1600-14	N13 49.5 W061 03.0	336°/7NM HEWANORRA (SAINT LUCIA) (BNE) VORDME
QUILOTOA	ECUADOR	1502-06	S00 51.0 W078 54.0	320°/33NM AMBATO (AMV) VORDME
REVENTADOR	ECUADOR	1502-01	S00 04.4 W077 39.2	015°/89NM PASTAZA (PAV) VORDME
ROBINSON CRUSOE	CHILE-IS	1506-02	S33 39.3 W078 51.0	292°/340NM CONCEPCION (CAR) VORDME
RUIZ	COLOMBIA	1501-02	N04 53.4 W075 19.2	234°/30NM MARIQUITA (MQU) VOR
SABA	W INDIES	1600-01	N17 37.5 W063 13.5	206°/25NM SAINT MAARTEN (PJM) VORDME
SABANCAYA	PERU	1504-003	S15 46.5 W071 51.0	337°/36NM AREQUIPA (EQU) VORDME
SAN JOSE	CHILE-C	1507-02	S33 46.6 W069 53.5	108°/43NM LOS CERRILLOS (SANTIAGO) (SCL) VORDME
SAN PEDRO	CHILE-N	1505-07	S21 52.5 W068 24.0	081°/93NM TOCOPILLA (TOC) VOR
SANGAY	ECUADOR	1502-09	S02 01.5 W078 19.5	316°/19NM MACAS (MAV) VORDME
SANTIAGO	GALAPAGOS	1503-09	S00 13.1 W090 46.1	285°/32NM GALAPAGOS (ISLA BALTRA) (GLV) VORDME
SIERRA NEGRA	GALAPAGOS	1503-05	S00 49.5 W091 10.1	240°/58NM GALAPAGOS (ISLA BALTRA) (GLV) VORDME
SOUFRIERE GUADELOUPE	W INDIES	1600-06	N16 03.0 W061 40.1	188°/13NM POINTE A PITRE (PPR) VORDME
SOUFRIERE HILLS	W INDIES	1600-05	N16 43.1 W062 10.5	235°/32NM V.C. BIRD (SAINT JOHNS) (ANU) VORDME
SOUFRIERE ST VINCENT	W INDIES	1600-15	N13 19.5 W061 10.5	219°/26NM HEWANORRA (SAINT LUCIA) (BNE) VORDME
SUMACO	ECUADOR	1502-003	S00 32.2 W077 37.3	023°/63NM PASTAZA (PAV) VORDME
TINGUIRIRICA	CHILE-C	1507-03	S34 48.5 W070 21.1	071°/43NM CURICO (ICO) VORDME
TOLIMA	COLOMBIA	1501-03	N04 40.1 W075 19.5	104°/31NM PEREIRA (PEI) VOR
TUNGURAHUA	ECUADOR	1502-08	S01 28.0 W078 26.3	151°/12NM AMBATO (AMV) VORDME
TUPUNGATITO	CHILE-C	1507-01	S33 24.0 W069 48.0	077°/45NM LOS CERRILLOS (SANTIAGO) (SCL) VORDME
TUTUPACA	PERU	1504-04	S17 01.3 W070 21.3	359°/65NM TACNA (TCA) VORDME
UBINAS	PERU	1504-02	S16 21.2 W070 54.1	092°/39NM AREQUIPA (EQU) VORDME
VILLARRICA	CHILE-C	1507-12	S39 25.1 W071 55.5	048°/38NM TEMUCO (TCO) VORDME
VOLCANO ALCEDO	GALAPAGOS	1503-04	S00 25.5 W091 07.1	263°/50NM GALAPAGOS (ISLA BALTRA) (GLV) VORDME
VOLCANO VIEDMA	CHILE-S	1508-061	S49 25.1 W073 16.5	131°/121NM ISLOTE SAN PEDRO (ISP) VORDME
VOLCANO WOLF	GALAPAGOS	1503-02	N00 01.1 W091 21.0	287°/70NM GALAPAGOS (ISLA BALTRA) (GLV) VORDME
YUCAMANE	PERU	1504-05	S17 10.5 W070 12.0	007°/56NM TACNA (TCA) VORDME

ICELAND-ATLANTIC-ANTARCTICA

VOLCANO NAME	COUNTRY/STATE REGION	VOLCANO NUMBER	VOLCANO LAT-LONG	RADIAL(MAG BRG) & DISTANCE FROM REFERENCE NAVIGATION AID
AGUA DE PAU	AZORES	1802-09	N37 46.1 W025 28.1	355°/50NM SANTA MARIA (VSM) VOR
ASKJA	ICELAND-NE	1703-06	N65 01.5 W016 45.0	163°/54NM AKUREYRI (AKI) VORTAC
BARDARBUNGA	ICELAND-NE	1703-03	N64 37.5 W017 31.5	352°/54NM INGO (ING) VORDME
BOUVET	ATLANTIC-S	1806-02	S54 25.1 E 003 21.0	226°/1385NM CAPE TOWN (CTV) VORDME
BRISTOL ISLAND	ANTARCTICA	1900-08	S59 01.5 W026 34.5	072°/905NM MARAMBIO (MBI) VORDME
BUCKLE ISLAND	ANTARCTICA	1900-01	S66 48.0 E 163 15.0	160°/1226NM INVERCARGILL (NV) VORDME
CANDLEMAS ISLAND	ANTARCTICA	1900-10	S57 04.5 W026 43.1	066°/970NM MARAMBIO (MBI) VORDME
DECEPTION ISLAND	ANTARCTICA	1900-03	S62 58.1 W060 39.0	211°/65NM ISLA REY JORGE (IRJ) VORDME
DON JOAO DE CASTRO BANK	AZORES	1802-07	N38 13.5 W026 37.5	159°/40NM LAJES (LM) VOR
ESJUFJOLL	ICELAND-S	1704-02	N64 16.1 W016 39.0	016°/28NM INGO (ING) VORDME
EYJAFJOLL	ICELAND-S	1702-02	N63 37.5 W019 37.1	280°/80NM INGO (ING) VORDME
FAYAL	AZORES	1802-01	N38 36.0 W028 43.5	328°/6NM HORTA (VFL) VORTAC
FOGO	CAPE VERDE IS	1804-01	N14 57.0 W024 21.0	231°/133NM SAL (CVS) VORDME
FREMRINAMUR	ICELAND-NE	1703-07	N65 25.5 W016 39.0	139°/39NM AKUREYRI (AKI) VORTAC
FURNAS	AZORES	1802-10	N37 46.1 W025 19.1	003°/49NM SANTA MARIA (VSM) VOR
GRIMSVOTN	ICELAND-NE	1703-01	N64 25.1 W017 19.5	351°/41NM INGO (ING) VORDME
HEKLA	ICELAND-S	1702-07	N63 58.5 W019 42.0	110°/77NM KEFLAVIK (KEF) VORTAC
HIERRO	CANARY IS	1803-02	N27 43.5 W018 01.5	265°/73NM TENERIFE-SOUTH (TFS) VORDME
JAN MAYEN	ATLANTIC-N	1706-01	N71 04.5 W008 10.1	049°/386NM AKUREYRI (AKI) VORTAC
KATLA	ICELAND-S	1702-03	N63 37.5 W019 03.1	278°/65NM INGO (ING) VORDME
KOLBEINSEY RIDGE	ICELAND-N OF	1705-01	N67 07.1 W018 36.0	010°/83NM AKUREYRI (AKI) VORTAC
KRAFLA	ICELAND-NE	1703-08	N65 43.5 W016 46.5	112°/30NM AKUREYRI (AKI) VORTAC
KVERKFJOLL	ICELAND-NE	1703-05	N64 39.0 W016 43.1	014°/51NM INGO (ING) VORDME
LA PALMA	CANARY IS	1803-01	N28 34.5 W017 49.5	308°/69NM TENERIFE-SOUTH (TFS) VORDME
LANZAROTE	CANARY IS	1803-06	N29 01.5 W013 37.5	359°/5NM LANZAROTE (LT) VORDME
LOKI-FOGRUFJOLL	ICELAND-NE	1703-02	N64 28.5 W017 48.0	340°/50NM INGO (ING) VORDME
MONACO BANK	AZORES	1802-11	N37 36.0 W025 52.5	330°/51NM SANTA MARIA (VSM) VOR
MOUNT EREBUS	ANTARCTICA	1900-02	S77 31.5 E 167 10.1	155°/1872NM INVERCARGILL (NV) VORDME
MOUNT MELBOURNE	ANTARCTICA	1900-015	S74 21.0 E 164 42.0	157°/1683NM INVERCARGILL (NV) VORDME
MOUNT MICHAEL	ANTARCTICA	1900-09	S57 46.5 W026 27.0	069°/951NM MARAMBIO (MBI) VORDME
ORAEFAJOKULL	ICELAND-SE	1704-01	N64 00.0 W016 39.0	016°/11NM INGO (ING) VORDME
PENGUIN	ANTARCTICA	1900-031	S62 06.0 W057 55.5	068°/3NM ISLA REY JORGE (IRJ) VORDME
PICO	AZORES	1802-02	N38 28.1 W028 24.0	119°/11NM HORTA (VFL) VORTAC
PROTECTOR SHOAL	ANTARCTICA	1900-14	S55 55.1 W028 04.5	061°/993NM MARAMBIO (MBI) VORDME
REYKJANES	ICELAND-SW	1701-02	N63 52.5 W022 30.0	175°/7NM KEFLAVIK (KEF) VORTAC
REYKJANESHRYGGUR	ICELAND-SW	1701-01	N63 40.1 W023 19.5	246°/27NM KEFLAVIK (KEF) VORTAC
SAN JORGE	AZORES	1802-03	N38 39.0 W028 04.5	086°/26NM HORTA (VFL) VORTAC
SEAL NUNATAKS GROUP	ANTARCTICA	1900-05	S65 01.5 W060 03.0	229°/100NM MARAMBIO (MBI) VORDME
SETE CIDADES	AZORES	1802-08	N37 52.1 W025 46.5	343°/61NM SANTA MARIA (VSM) VOR
TENERIFE	CANARY IS	1803-03	N28 16.2 W016 38.3	016°/16NM TENERIFE-SOUTH (TFS) VORDME
TERCEIRA	AZORES	1802-05	N38 43.5 W027 19.1	266°/10NM LAJES (LM) VOR
TJORNES FRACTURE ZONE	ICELAND-N OF	1703-10	N66 18.0 W017 06.0	053°/39NM AKUREYRI (AKI) VORTAC
TRISTAN DA CUNHA	ATLANTIC-S	1806-01	S37 05.3 W012 18.5	274°/1513NM LANGEBAANWEG (LWV) VORDME
UNNAMED	ATLANTIC-C	1805-03	S00 34.5 W015 49.5	007°/449NM ASCENSION AUX (ASI) VORTAC
UNNAMED	AZORES	1802-081	N37 46.5 W025 40.1	346°/54NM SANTA MARIA (VSM) VOR
UNNAMED	ATLANTIC-N	1801-02	N49 00.0 W034 30.0	001°/590NM FLORES (FRS) VORDME
UNNAMED	ATLANTIC-N	1801-04	N38 45.0 W038 04.5	279°/323NM FLORES (FRS) VORDME
UNNAMED	ARCTIC OCEAN	2001-01	N88 16.1 W065 36.0	065°/707NM THULE (THT) VORTAC
VESTMANNAEYJAR	ICELAND-S	1702-01	N63 25.5 W020 16.5	132°/70NM KEFLAVIK (KEF) VORTAC
ZAVODOVSKI	ANTARCTICA	1900-13	S56 18.0 W027 34.1	063°/978NM MARAMBIO (MBI) VORDME



PRECAUTIONS

WARNING! Conventional weather radar will not detect volcanic ash clouds.

Indications that an aircraft has inadvertently entered a volcanic ash cloud and pilot actions generally recommended are as follows.

Indications of Volcanic Ash

- Smoke or very fine dust in cabin
- Acrid odor (like electrical smoke)
- Low airspeed indications
- Cargo fire warnings (caused by volcanic ash triggering smoke detectors)
- Static discharges (St. Elmo's Fire) around windscreen or on wing, stabilizer, or fin tips
- White glow (searchlight effect) shining out of engine inlets
- Multiple engine malfunctions (increasing EGT, power loss, stall or flame out)

Pilot Actions Generally Recommended

- Exit ash cloud as quickly as possible (180 degree turn)
- Do not attempt to climb out of the ash cloud
- Auto-throttle — Disconnect
- Throttles (terrain permitting) — Minimum
- Ignition — On
- Bleed air systems (air conditioning, engine and wing anti-ice, etc.) — Full on
- Auxiliary power unit — Start
- Engine EGT limits — Monitor
- Engine re-start — If required
- Airspeed and pitch attitude — Monitor
- Crew oxygen masks on 100% — If required
- Declare an Emergency to ATC (if warranted)
- Transmit Special Air Report of Volcanic Activity
- Land at the nearest suitable airport

This map is for reference purposes only. It is not intended to be used for purposes of navigation.

Introduction

This map shows the locations of the Earth's 1,330 volcanoes active in the last 10,000 years together with selected aeronautical navigation aids, and great-circle routes. The purpose of the map is to inform and increase awareness about the close spatial relationship between volcanoes and aviation operations. Properly used, this map will mitigate the threat that volcanic hazards pose to aircraft and thus help to improve aviation safety.

Modern airplanes, especially the latest generation of jet aircraft, are designed to operate in environments free from dust and corrosive gases. Explosive volcanic eruptions such as the 1989–90 eruptions of Redoubt Volcano in Alaska and the 1991 eruptions of Mount Pinatubo Volcano in the Philippines inject large amounts of very small rock fragments, known as volcanic ash, and corrosive gases into the troposphere and lower stratosphere. These layers of the atmosphere are the normal cruising altitudes for commercial jet airplane traffic. Such explosive eruptions occur somewhere on Earth about 10 times per year. Many of these explosive volcanoes are found around the rim of the Pacific Ocean in the "Ring of Fire" and have a direct impact on air routes, airports, and flight operations.

In the past 15 years, more than 80 jet aircraft have been damaged as a result of inadvertent encounters with drifting clouds of volcanic ash that have contaminated air routes and airport facilities. Most of these encounters involved large commercial jet airliners, seven of which experienced in-flight loss of engine power. The repair and replacement costs associated with airplane encounters with ash clouds during the past 15 years exceed $200 million. In addition to the high economic cost of these encounters, the potential human cost is very high: more than 1,500 passengers aboard the seven airliners were put at risk. Compounding the problem is the fact that volcanic ash clouds are not detectable by the present generation of radar instrumentation aboard aircraft. Complete avoidance of volcanic ash clouds is the only way to prevent damage to aircraft by volcanic ash.

Volcanic ash clouds may drift for hundreds to thousands of miles from their sources and can contaminate large volumes of airspace. Ash clouds may drift over several countries and into different Flight Information Regions (FIRs) and Air Traffic Control (ATC) jurisdictions. At times, ash from a single eruption can contaminate a heavily used airspace region. This causes flights to be diverted, delayed, or canceled. Given the nature of today's long-range flight operations, a single eruption can have a global effect on air traffic operations.

An important element in avoiding areas of known volcanic activity and (or) ash clouds is the ability to determine the relative proximity of volcanoes or ash clouds to the airports and flight corridors that may be affected by volcanic debris. This map and the information depicted on it relate volcanoes and principal aeronautical features. It also provides latitude and longitude positions of active volcanoes and a means for plotting graphic weather data such as ash-cloud trajectories or similar meteorological phenomena on a worldwide basis.

Because it is difficult to adequately chart the origin, position, and global movement of an ash cloud using conventional aeronautical enroute charts, participants at the *First International Symposium on Volcanic Ash and Aviation Safety* (U.S. Geological Survey Bulletin 2047) held in July 1991 in Seattle, Washington, agreed that a uniquely designed global chart was the most efficient way to show the global aspect of volcanic ash clouds and their relationships to commercial aviation.

Volcanoes

Active volcanoes are typically concentrated in belts or chains along the edges of several continents, such as the western regions of the Americas, or in island chains such as Indonesia, Japan, the Kuriles, and the Aleutians. The distribution of volcanoes reflects fundamental Earth features known as tectonic plates. Near plate boundaries, molten material, called magma, rises to the surface and is erupted along fissures or through vents to form volcanoes.

Evidence of an eruption during the past 500 years exists for 564 volcanoes. Only about 170 active volcanoes are under continuous surveillance by volcano scientists. Historically active volcanoes are shown on the map by a solid red dot. Each volcano is identified by the numerical identifier used in the *Catalogues of Active Volcanoes of the World*, published by the International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI) between 1950 and 1975, and in *Volcanoes of the World*, published by the Smithsonian Institution in 1981. Volcanoes for which evidence exists for activity during the past 10,000 years are shown on the map by an open red circle.

Volcanic Plumes and Ash Clouds

Active volcanoes emit several types of plumes and clouds.

Quiescent plumes are whitish clouds composed largely of water vapor and gases and contain few or no solid rock particles. Quiescent plumes seldom rise above about 20,000 feet (6,000 m) altitude, typically disperse within a few miles of the volcano, and present no significant threat to aviation safety. Pilots often report the odor of sulfur gas (rotten-egg smell) when flying downwind from quiescent plumes.

Eruption columns are the dark-colored pillars of ash and gas that rise rapidly above a volcanic vent during an explosive eruption. Within a few minutes these dense concentrations of ash and gas may rise to altitudes exceeding 100,000 feet (30,000 m). Eruption columns seldom directly affect an area more than a few tens of miles from the volcanic vent.

Drifting ash clouds of finely broken rock fragments and gas are carried by upper winds for hundreds and possibly thousands of miles away from the volcano. Large eruption clouds often enter the stratosphere and are capable of circling the globe within periods of days to weeks, but they typically lose most of their heaviest ash load over a period of a few hours to a few days. Drifting ash clouds pose the greatest threat to aircraft. They drift over national boundaries and from one Flight Information Region to another.

Because ash clouds are difficult to detect from an airplane while in-flight, detection and tracking of ash clouds relies on accurate and timely information received from volcanological observers on the ground, from pilot reports, and from satellite observations of the cloud. Because drifting ash clouds are carried by winds aloft, meteorologists play an important role in forecasting where ash clouds are likely to move horizontally and vertically. Immediate communication and close coordination of this information between volcanologists and meteorologists to dispatchers and air traffic controllers and ultimately to pilots is essential.

Aeronautical Features

The aeronautical features shown on the map are representative of the principal components of global aviation. These features were chosen because they are easily recognized by individuals in the aviation industry and allow those in aviation to understand the relationship volcanoes have to their own operations. Conversely, the map also provides geologists and volcanologists with an understanding of the proximity of volcanoes to air traffic corridors and with a method to determine jurisdiction and responsibility for defined areas of airspace within which volcanoes are located. Aeronautical features include selected radio navigation aids (navaids), major cities served by commercial air traffic, great circle (direct) routes between selected city-pairs, and the boundaries of over-water Flight Information Regions (FIRs).

Radio Navigation Aids (navaids). The navaids shown on the map are high-altitude (H-class) VORs (Very High Frequency Omnidirectional Range). A VOR is a ground-based electronic navigation aid which transmits a VHF radio signal used by aircraft for navigation.

Great Circle Routes. A great circle route is the shortest distance between two points on the Earth's surface. The great circle routes shown on the chart are for visual reference only. A select number of routes were chosen as being representative of long-range operations between city-pairs. In some cases, routes are shown to graphically illustrate how some city-pair routes pass over major areas of volcanic activity. Size and scale limitations preclude the depiction of more than a few of these routes. Established airways and fixed air routes are too numerous and too detailed to be shown at this scale. The routes actually flown can vary significantly from these great circle routes. However, a large number of the world's busiest airways and air routes pass within less than 1000 nautical miles of the Earth's active volcanic regions.

Flight Information Regions (FIR/UIR). These are regions of airspace, defined by lateral and vertical dimensions, within which Flight Information Services are provided by a government agency. Services include providing advice and information useful for the safe and efficient conduct of flight within the geographic region. High-altitude (upper-level FIRs) are also known as UIRs. Due to the nature of this map, only over-water, high-altitude FIR boundaries are shown. Over land, FIR boundaries generally conform to national boundaries and may be subdivided into many smaller sectors. Generally, over land, flight information and air traffic control services are easier to obtain than in remote, over-water regions.

Reporting Volcanic Activity. Reports on volcanic activity or ash clouds should be made in a timely manner to the appropriate government agency responsible for air traffic management in the local FIR, as well as to the agency responsible for volcanological observations.

Volcano Reference List

The volcano reference list contains the names and locations of the 564 volcanoes known to have erupted since 1500 A.D., the IAVCEI volcano reference number, the latitude and longitude of the volcano, and its radial (magnetic bearing) and distance from the nearest navigation aid (H-class VOR). The name and identifier of the navaids are included. The volcanoes are arranged by geographic region and are listed alphabetically by name within each group. Using the cross reference list, a particular volcano can be located on the map by knowing its geographic region, name, identification number, or geographic coordinates. When found on the list, read across the line to find the geographic coordinates. Then locate the volcano on the map by using the reference grid and identification number.

Conversely, to determine the name and coordinates of a particular volcano shown on the map, refer to the volcano's geographic region in the list and then locate the volcano by its identification number. Read across the line to learn the name, location, and geographic coordinates. The radial (magnetic bearing) and distance and the name and identifier of the nearest VOR are provided for aviation-oriented users of the map.

Map Preparation

The base chart is an Equatorial Mercator projection of the Earth centered on the equator and 90° west longitude. The true scale of the chart is 1 inch = 470 nautical miles (NM), measured at the equator. Chart preparation involved several large digital data sets (1,330 volcanoes, 220 VOR navaids, 126 cities, and great circle routes) which required precise plotting of coordinate positions.

The map was designed and prepared by Jeppesen Sanderson, Inc., using Intergraph computer graphic workstations at their facility in Englewood, Colorado. Aeronautical and topographical information was generated from Jeppesen's worldwide electronic flight-information database. The digital data files on volcanoes were supplied by the Global Volcanism Program of the Smithsonian Institution, Washington, D.C. Final map reproduction was made by a combination of a Scitex computer laser-plotter system and traditional techniques.

Related References

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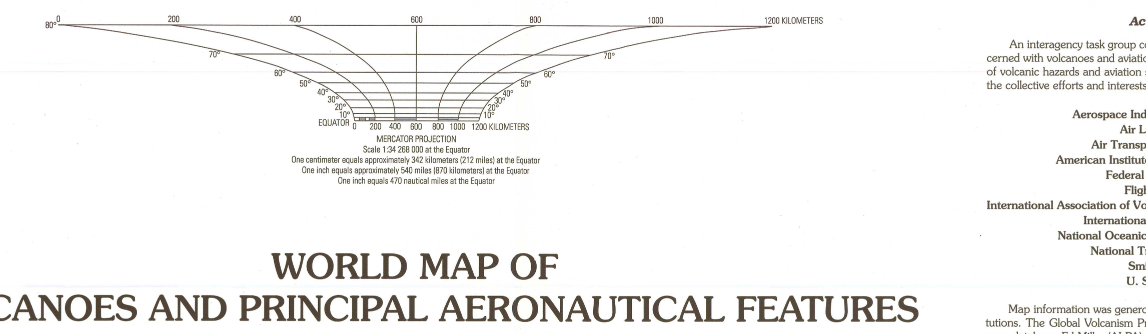

WORLD MAP OF VOLCANOES AND PRINCIPAL AERONAUTICAL FEATURES

By
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[1]U.S. Geological Survey [2]Jeppesen Sanderson, Inc.

1995

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An interagency task group composed of Federal agencies and associations concerned with volcanoes and aviation safety joined forces in 1990 to address the issue of volcanic hazards and aviation safety in a coordinated manner. This map reflects the collective efforts and interests of these organizations.

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National Oceanic and Atmospheric Administration
National Transportation Safety Board
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