

AGREEMENT

**ON THE JOINT FINANCING OF CERTAIN
AIR NAVIGATION SERVICES IN ICELAND**

ANNEX I — THE SERVICES

(Twenty-First Edition)



Published by authority of the Secretary General

1 January 2013

INTERNATIONAL CIVIL AVIATION ORGANIZATION

AMENDMENTS TO ANNEX I

The following Council Working Papers show amendments made by Council during the period between publication of the 20th Edition of this Annex, dated 1 January 2012, and the present or 21st Edition, dated 1 January 2013.

RECORD OF SUBSEQUENT AMENDMENTS

No.	Effective date	C-WP/No.	Recorded by

ANNEX I — THE SERVICES

PART I — AIR TRAFFIC SERVICES

An area control centre located at Reykjavik (6408N 2156W) to be in continuous operation to safeguard the North Atlantic international operations through the Reykjavik CTA/FIR, including the extraction, transmission and display of information from surveillance radar stations at Keflavik, Midnesheidi, Stokksnes, Gunnólfsvíkurfjall, Bolafjall, Sumburgh and the Faroe Islands as well as pilot/controller VHF communications at the same stations and through a station at Bláfjöll.

PART II — METEOROLOGICAL SERVICES

- A. Surface and upper-air synoptic observations to be made at the following meteorological stations in accordance with the following table and the reports to be transmitted to Reykjavik as designated in Part III A:

<i>Meteorological stations and their locations¹</i>	<i>Surface synoptic observations 3-hourly (at 00, 03, 06, 09, 12, 15, 18 and 21 UTC)</i>	<i>Hourly observations</i>	<i>Upper-air observations (at 00 and 12 UTC)</i>	
			<i>Radiosonde</i>	<i>Radiowind</i>
1. Bolungarvik 6609N 2315W	8			
2. Hofn 6416N 1512W	8			
3. Keflavik 6359N 2237W	8	24 ²	2	2

1. The above stations may be moved by the Icelandic Authorities within 25 km from the specified positions as long as neither the capital nor the operating costs with which this Agreement is concerned are thereby increased. Where such costs would be increased, the proposed relocation shall be submitted to the Council for prior approval.
2. Plus any necessary special observations.

- B. The following services by the meteorological office located at Reykjavik (6408N 2154W):

1. provision of routine aerodrome forecasts and necessary amendments for Keflavik and Reykjavik;
2. provision of area meteorological watch for the Reykjavik CTA/FIR including the issue of SIGMET information;
3. provision of the State volcano observatory services for Iceland, as defined in ICAO Annex 3, *Meteorological Service for International Air Navigation*.

PART III — AERONAUTICAL AND METEOROLOGICAL TELECOMMUNICATION SERVICES

Telecommunication services to be provided as follows:

A. Reykjavik

1. Collection of meteorological reports from jointly financed synoptic stations in Iceland and aircraft in flight and their retransmission to Regional Telecommunications Hub Exeter.¹
2. Reception of meteorological reports from jointly financed synoptic stations in Greenland and their retransmission to Regional Telecommunications Hub Exeter.¹
3. Reception of meteorological messages originating in Europe and North America (except Greenland) from Regional Telecommunications Hub Exeter.
4. Aeronautical mobile service with aircraft on VHF:
 - a) remote control of four transceivers at the Faroe Islands, used in connection with radar control of aircraft.²
 - b) remote control of four transceivers at Gunnólfsvíkurfjall/Fjardarheidi, used in connection with radar control of aircraft.
 - c) remote control of five transceivers at Stokksnes/Hornafjörður, used in connection with radar control of aircraft.
 - d) remote control of five transceivers at Bolafjall/Thverfjall, used in connection with radar control of aircraft.
 - e) remote control of two transceivers at the Vestmann Islands, used in connection with radar control of aircraft.
5. Microwave link:
 - a) Reykjavik OACC – Keflavik radar control centre.
 - b) Reykjavik OACC – Bláfjöll communications site.
6. Telephone services:
 - a) ATC Reykjavik – approach control/aerodrome control tower Keflavik.
 - b) ATC Reykjavik – MET Reykjavik.
 - c) MET Reykjavik – MET Keflavik.
 - d) Gander – Reykjavik – (Søndre Strømfjord), ATC speech.³
 - e) Reykjavik – Prestwick/Shanwick, ATC speech.³
 - f) Reykjavik – Gander – (Edmonton), ATC speech.⁴
 - g) Reykjavik – Prestwick, ATC speech.³
 - h) Reykjavik – Stavanger-Bodø, ATC speech.³

- i) Reykjavik – Søndre Strømfjord, ATC speech.^{4,5}
 - j) Søndre Strømfjord – Reykjavik, ATC speech, detour via Godthaab – Montréal.
7. Data services:
- a) MET Keflavik – MET receiving unit Reykjavik.
 - b) Reykjavik cable office – MET receiving unit Reykjavik.
 - c) Reykjavik – Exeter, MET data.³
 - d) Reykjavik – Prestwick/Shanwick, ATC data.³
 - e) Reykjavik – Prestwick/Scottish, ATC data.³
 - f) Reykjavik – Gander, ATC data.⁴
 - g) Reykjavik – Keflavik airport, radar data.
 - h) Reykjavik – Faroe Islands, radar data.²
 - i) Reykjavik – Faroe Islands, 4 P/C VHF for radar control.²

B. Gufunes (Reykjavik) Communication Centre — AMS, AFS

1. Aeronautical mobile service with aircraft on HF and VHF extended range. The HF system comprises receiving stations at Thverholt and Gardskagi and transmitting stations at Grindavik and Bessastadir, Hunathing vestra. The VHF extended range system comprises stations at Hafell, Thorbjorn, Gagnheidi and Thverfjall in Iceland, at Kulusuk and Søndre Strømfjord (Qaqatoq) in Greenland and the Faroe Islands, as well as the lines necessary for their remote control from Gufunes, and a satellite circuit Reykjavik – Greenland, A/G GP VHF.
2. Telephone services:
 - a) Gufunes – ATC Reykjavik.
 - b) Gufunes – Grindavik.
 - c) Gufunes – Bessastadir, Hunathing vestra.
 - d) Gufunes – MET Reykjavik.
3. Data services:
 - a) Gufunes – ATC Reykjavik.
 - b) Gufunes – flight operations Keflavik.
 - c) Gufunes – MET Reykjavik.
 - d) Gufunes – MET Keflavik.
 - e) Gufunes – COM Keflavik.

- f) Duplex AFTN service between the COM Centres at Gufunes and Søndre Strømfjord.⁵
- g) Duplex AFTN/CIDIN service between the COM Centres at Gufunes and Ottawa (Montréal).⁴
- h) Duplex AFTN/CIDIN service between the COM Centres at Gufunes and Heathrow (London).³
- i) Duplex AFTN/CIDIN service between the COM Centres at Gufunes and Bergen.³

PART IV — RADIO NAVIGATION AIDS

Radio navigation aids to be provided as follows:

VOR/DME facilities at Ingólfshöfði and Keflavik providing en route navigation services on a continuous basis.

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1. Reception performed using the AFTN. Retransmission to Regional Telecommunications Hub Exeter using the circuit A 7 c).
 2. Service performed using landlines from ATC Reykjavik to the Communications Switching Centre in Reykjavik, which connects through the CANTAT-3 and FARICE fibre optic cables to the Communications Switching Centre in Thorshavn and from there to the remote sites.
 3. The services listed under A 6 d), e), g) and h), A 7 c), d) and e) and B 3 h) and i) are to be provided using landlines from ATC and MET Reykjavik and COM Gufunes to the Communications Switching Centre in Reykjavik where connection is made with the United Kingdom and Norway through the CANTAT-3 and FARICE fibre optic cables.
 4. The services listed under A 6 f), A 7 f) and B 3 g) are to be provided using landlines from ATC and MET Reykjavik and COM Gufunes to the Communications Switching Centre in Reykjavik where connection is made with Canada through the INTELSAT and CANTAT-3 Systems.
 5. Service performed using landlines from ATC Reykjavik and COM Gufunes to the Communications Switching Centre in Reykjavik, which connects through the INTELSAT System to a Ground Earth Station at Søndre Strømfjord.

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ANNEX II — INVENTORY

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AMENDMENTS TO ANNEX II

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JS-WP/1965; JS-WP/1966; JS-WP/1968; JS-WP/1976

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