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Automatic Terminal Information Service (ATIS) station approval		Revision 0
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## 1. Objective

- 1.1. This directive is part of the CNS inspector handbook.
- 1.2. This directive provides guidance for evaluating and approving Automatic Terminal Information Service (ATIS) Station.

## 2. General

- 2.1. Under article 35(a) to the Israeli Air Navigation Law 2011 any Aeronautical Telecommunication Service is required to have CAAI approval before being established or used.
- 2.2. Automatic Terminal Information Service (ATIS) is specifically included in the definition of Aeronautical Telecommunication Service in Article 1 to the ANL, 2011.
- 2.3. This document sets out the requirements for approval of ATIS equipment.
- 2.4. The purpose of an Automatic Terminal Information Service (ATIS) is to reduce ATS workload by the use of a means other than the controller's VHF air-ground communications frequency to convey current and routine meteorological and aerodrome information to aircraft.
- 2.5. ATIS may be implemented by Voice-ATIS or data link (D-ATIS). An aerodrome Voice-ATIS may be provided by an ATS Provider, using either a dedicated VHF transmitter or a CVOR/DVOR transmitter.
- 2.6. A D-ATIS may be provided by an ATS Provider, in conjunction with a data link communication Service Provider, using a VHF ground station network or by satellite.
- 2.7. For the purpose of this document, ATIS is only considered to include the collation of meteorological and aerodrome data, the preparation of messages and the transmission of the messages.
- 2.8. The Israeli Meteorological Service is responsible for the regulation of meteorological services to aviation. The use and processing of meteorological information within an ATS unit is subject to regulation by the CAAI.
- 2.9. The origination of meteorological reports and other related information is regulated by the Israel Meteorological Service. Automatic Terminal Information Service (ATIS) equipment and the content of ATIS broadcast messages are regulated by the CAAI.
- 2.10. This document applies to fixed, station comprising transmitter, receiver and transceiver equipment types operating in the VHF Aeronautical Mobile (R) Service allocation 118 MHz to 136.975 MHz, using Double Sideband (DSB) Amplitude Modulation (AM) full carrier with 8.33 KHz or 25 KHz channel spacing, intended for analogue voice and data link communications.

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### 2.11. Abbreviations

- ANL - Air Navigation Law
- ANR - Air Navigation Regulations
- ATC - Air Traffic Control
- ANS - Air Navigation Service
- ATS - Air Traffic Service
- DOC - Designated Operational Coverage
- SINAD - (Signal + Noise + Distortion) / (Noise + Distortion)
- VHF - Very High Frequency

## 3. Reference Material ,Form& Job-Aids

### 3.1. Law & Regulation

- 3.1.1. ANL 2011 section 35(a) & 27(a) & 29
- 3.1.2. ANR Operation of Aircraft and Rules of Flight, 1981 - 66(c).
- 3.1.3. ANR Safety at Aerodromes of the Airport Authority, 1992 - 3

### 3.2. CAAI AP

- 3.2.1. AP 1.7.005 / 2.7.005 - ATS equipment installation, maintenance, operation & approval.
- 3.2.2. CAAI ANS 1.7.021 VHF Aeronautical Radio Stations approval.
- 3.2.3. CAAI ANS 1.7. 023 CVOR/DVOR approval.

### 3.3. ICAO annexes & documents

- 3.3.1. ICAO Annex 3 — Meteorological Service for International Air Navigation.
- 3.3.2. ICAO Annex 10 Aeronautical Telecommunications Volume III - Communication Systems Part I - Digital Data Communication Systems;
- 3.3.3. ICAO Annex 10 Aeronautical Telecommunications Volume III - Communication Systems Part II - Voice Communication Systems.
- 3.3.4. ICAO Annex 10 Aeronautical Telecommunications Volume V (Aeronautical Radio Frequency Spectrum Utilization).
- 3.3.5. ICAO Annex 11 Air Traffic Services.
- 3.3.6. ICAO Procedures for Air Navigation Services — Air Traffic Management (Doc 4444-ATM/501).
- 3.3.7. ICAO Doc 11 - EUR Frequency Management Manual
- 3.3.8. ICAO Manual of Air Traffic Services Data Link Applications (Doc 9694).
- 3.3.9. ICAO Doc 9712 - Training Manual Part E-2 Air Traffic Safety Electronics Personnel (ATSEP)

Note: This document incorporates the relevant SARPs from ICAO Annex 10 and Annex 11 together with material from the ITU Radio Regulations.

### 3.4. Forms & Job-Aids – none

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## 4. Process

### 4.1. Technical Requirements

#### 4.1.1. Safety objective

The Automatic Terminal Information Service (ATIS) equipment and systems shall provide complete, identified, accurate and uncorrupted voice/data communication of meteorological and other aeronautical information.

#### 4.1.2. General Requirements

4.1.2.1 The equipment, systems, services and facilities shall comply with the applicable international standards, recommended practices and procedures for air navigation services in Annex 11, Annex 10 and Annex 3 to the Convention on International Civil Aviation.

4.1.2.2 The equipment and systems used in the provision of a Voice-ATIS or D-ATIS shall provide all the necessary signals and information to the Voice/Data Recording equipment.

4.1.2.3 Appropriate material relating to the operation of the ATIS shall be written for inclusion in the ATS Operational Manual.

#### 4.1.3. Specific Requirements

##### 4.1.3.1 Voice-ATIS and D-ATIS

4.1.3.1.1. The ATIS message shall relate to a single aerodrome.

4.1.3.1.2. The ATIS message shall be updated immediately when a significant change occurs.

4.1.3.1.3. The preparation and dissemination of the ATIS message shall be the responsibility of the ATS Provider.

4.1.3.1.4. Individual ATIS messages shall be identified by a letter designator from the ICAO spelling alphabet assigned consecutively in alphabetical order.

4.1.3.1.5. ATIS shall only be broadcast when the ATC Watch is operational. However, units may be approved to make use of the ATIS frequency to broadcast Auto METAR when the ATC Watch is closed, where the Unit meets the requirements of (Broadcast of Auto METAR).

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#### 4.1.3.2 Voice-ATIS

4.1.3.2.1. ATIS shall only be provided in association with an ATC service.

4.1.3.2.2. Voice-ATIS shall be provided at aerodromes where there is an operational requirement to reduce ATC VHF air-ground communications workload.

4.1.3.2.3. Voice-ATIS broadcasts provided at designated aerodromes for use by international air services shall be available in the English language as a minimum.

Recommendation: Where Voice-ATIS broadcasts are available in more than one language, a discrete channel should be used for each language.

4.1.3.2.4. Voice-ATIS broadcasts shall comprise:

- One broadcast for arriving aircraft or
- One broadcast for departing aircraft or
- One broadcast for arriving and departing aircraft or
- Two separate broadcasts for arriving and departing aircraft where the combined broadcast would be excessively long.

Recommendation: The Voice-ATIS broadcast message should, whenever practicable, not exceed 30 seconds, care being taken that the readability of the ATIS message is not impaired by the speed of the transmission or by the identification signal of a navigation aid used for transmission of ATIS. The ATIS broadcast message should take into consideration human performance.

4.1.3.2.5. Voice-ATIS shall be provided on a discrete VHF frequency whenever practicable.

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- 4.1.3.2.6. When a discrete VHF frequency is not available, Voice-ATIS may be provided on the most appropriate terminal navigation aid.

Guidance: CVOR or DVOR facilities are considered to be appropriate navigation aids subject to evidence from the ATS Provider of the Voice-ATIS, justifying the choice of navigation aid, taking into account the Designated Operational Coverage, quality of the voice transmissions and any other appropriate factors. The ATS Provider of a CVOR or DVOR navigation aid used for Voice-ATIS would be responsible for demonstrating compliance with the dual operation of navigation aid and ATIS.

- 4.1.3.2.7. Voice-ATIS shall not be provided on an ILS facility.

- 4.1.3.2.8. Voice-ATIS broadcasts, when provided, shall be continuous and repetitive.

Guidance: In the event of failure of the Voice-ATIS, the air traffic controller may provide the ATIS information using the control VHF frequency or, where the workload prevents this, by opening of another alternative VHF frequency by an additional air traffic controller or assistant.

#### 4.1.3.3 D-ATIS

- 4.1.3.3.1. Where D-ATIS is provided alongside the existing availability of Voice- ATIS, the content and format of the information shall be identical.

- 4.1.3.3.2. Where D-ATIS is provided alongside the existing availability of Voice- ATIS, when the ATIS requires updating, the Voice-ATIS and D-ATIS shall be updated simultaneously.

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Guidance: In the event of failure of the D-ATIS, the ATIS information can be obtained from the Voice-ATIS. Where both D-ATIS and Voice- ATIS fail, the situation is the same as that for a failure of the Voice- ATIS.

4.1.3.3.3. It is likely that interface arrangements will need to be established between the ATS Providers, operating the aerodrome Voice-ATIS, and the D-ATIS data link Service Provider, to ensure compliance with the requirements.

Note: The technical requirements for the D-ATIS application are contained in Part 1 Chapter 3 of ICAO Annex 10 Vol III.

#### 4.1.3.4 Collation of Meteorological and Aerodrome Data

4.1.3.4.1. The meteorological data used in the preparation of ATIS messages shall be compliant with ICAO Annex 3.

4.1.3.4.2. The meteorological data shall be extracted from the **local** meteorological routine or special report

Note: In accordance with Sections 4.1 and 4.3 of Appendix 3 to Annex 3, the surface wind direction and speed and runway visual range (RVR) are to be averaged over 2 minutes and 1 minute, respectively; and the wind information is to refer to conditions along the runway for departing aircraft and to conditions at the touchdown zone for arriving aircraft. A template for the local meteorological report, including the corresponding ranges and resolutions of each element, are in Appendix 3 to Annex 3. Additional criteria for the local meteorological report are contained in Chapter 4 of, and in Attachment D to, Annex 3. The ATS Provider shall ensure that the accuracy and integrity of the data used in the preparation of the ATIS message is maintained at a level appropriate to the operational requirements.

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Guidance: It is likely that the interface arrangements between the ATS Provider and the Data Link Communications Service Provider will enable the ATS Provider to obtain evidence of compliance with this requirement for the Data Link operations.

4.1.3.4.3. When rapidly changing meteorological conditions make it inadvisable to include a weather report in the ATIS, the ATIS messages shall indicate that the relevant weather information will be given on initial contact with the appropriate ATS unit.

#### 4.1.3.5 Preparation of Messages

4.1.3.5.1. Where the Voice-ATIS broadcast messages are not prepared by the aerodrome ATC Unit, the organization responsible for this task shall immediately make known the information contained in the current broadcast to the ATC Unit .

Recommendation: The Voice-ATIS broadcast should be prepared to achieve optimum readability consistent with message length, speed of transmission and human factors performance.

Guidance: The message length should not exceed 30 seconds.

Recommendation: The message contents should be kept as brief as possible and information additional to that specified in ICAO Annex 11,4.3.7 to 4.3.9 should only be included in exceptional circumstances .

4.1.3.5.2. The message contents shall contain the elements of information as defined in ICAO Annex 11, 4.3.7 to 4.3.9 in the order given.

Note: Appendix A contains a summary of the ATIS message elements in ICAO Annex 11.

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Guidance: Where the preparation of messages involves recording speech using a microphone, care should be taken to ensure that any background noise does not degrade the quality of the recording. Where the preparation is done automatically, using either synthesized or pre-recorded spoken words or phrases, care should be taken to ensure that the quality and readability of the recording is equivalent to that achieved by manual recording.

#### 4.1.3.6 Transmission of Messages

##### 4.1.3.6.1. Voice-ATIS VHF Transmitter

CAAI ANS 1.7.2020 VHF Aeronautical Radio Stations approval contains requirements for all radio equipment including Voice-ATIS VHF Transmitters and VHF Transmitters used for ACARS and VDL Mode 2 data link communications.

##### 4.1.3.6.2. Voice-ATIS CVOR/DVOR Transmitter

- CAAI ANS 1.7. 022 CVOR/DVOR approval includes the option of providing Voice-ATIS by using the speech modulation input to the transmitter.
- The DOC and frequency assignment terms and conditions must be consistent with both the CVOR/DVOR and Voice-ATIS operational requirements. Radio coverage problems may be found if the CVOR/ DVOR is not located on or near the aerodrome providing the Voice- ATIS.



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- Where the CVOR/DVOR beacon is not the direct responsibility of the aerodrome ATS Provider providing the Voice-ATIS, then a service level agreement or some other arrangement might be necessary to ensure compliance with operational requirements and to cover aspects such as maintenance.

#### 4.1.3.6.3. Voice-ATIS Telephone Information Service.

Access to the Voice-ATIS may be provided via a PSTN/ PBX telephone information service as an additional service to aviation and other users. There is no requirement to record the telephone service.

## 4.2. Maintenance of Aeronautical Radio Stations

4.2.1. The maintenance requirement (general requirements, training, maintenance program, forms...) is detailed in CAAI ANS 1.7.21 VHF Aeronautical Radio Stations approval/ CAAI ANS 1.7.23 CVOR/DVOR approval.

## 4.3. Additional information

4.3.1. The inspector will review all the other documents required by CAAI AP 1.7.005 / 2.7.005 (ATS equipment installation, maintenance, operation & approval)

## 4.4. Demonstration and Inspection Phase

4.4.1. CAAI requires service providers to demonstrate their ability to comply with regulations and safe operating practices before beginning operating the equipment.

4.4.2. These demonstrations include actual performance of activities and/or operations while being observed by the inspector.

4.4.3. The demonstration will include on-site evaluations of equipment maintenance and support facilities.

4.4.4. During these demonstrations and inspections, the inspector will evaluate the effectiveness of the policies, methods, procedures, and instructions as described in the Service provider manuals and other documents.

4.4.5. Deficiencies will be brought to the attention of the service provider and corrective action must be taken before a certificate is issued.

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#### 4.5. Task Outcomes

- 4.5.1. After the document compliance and the demonstration and inspection phases have been completed satisfactorily, the inspector will prepare the Aeronautical Telecommunication Service Certificate that include all the information (equipment model, frequencies, identification, location, limitations etc..).
- 4.5.2. The service provider must acknowledge receipt of these documents.
- 4.5.3. The process above should be documented in the Sharedocs system.

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### Appendix A - ICAO Annex 11 ATIS Message Elements

ATIS messages shall contain the following elements of information in the order listed:

Message Elements		Arrival & Departure	Arrival	Departure	Footnote
(a)	name of aerodrome;	✓	✓	✓	
(b)	arrival and/or departure indicator;	✓	✓	✓	
(c)	contract type, if communication is via D-ATIS;	✓	✓	✓	
(d)	Designator;	✓	✓	✓	
(e)	time of observation, if appropriate;	✓	✓	✓	
(f)	type of approach(es) to be expected;	✓	✓	✓	
(g)	the runway(s) in use; status of arresting system constituting a potential hazard, if any;	✓	✓	✓	
(h)	significant runway surface conditions and, if appropriate, braking action	✓	✓	✓	
(i)	holding/departure delay, if appropriate	✓	✓	✓	
	holding delay, if appropriate;	✓	✓	✓	
(j)	transition level, if applicable	✓	✓	✓	
(k)	other essential operational information	✓	✓	✓	
(l)	surface wind direction (in degrees magnetic) and speed, including significant variations and, if surface wind sensors related specifically to the sections of runway(s) in use are available and the information is required by operators, the indication of	✓	✓	✓	

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Message Elements		Arrival & Departure	Arrival	Departure	Footnote
	the runway and the section of the runway to which the information refers;				
(m)	visibility and, when applicable, RVR and, if visibility/RVR sensors related specifically to the sections of runway(s) in use are available and the information is required by operators, the indication of the runway and the section of the runway to which the information refers;	✓	✓	✓	*
(n)	present weather	✓	✓	✓	*
(o)	cloud below 1500 m (5000 ft) or below the highest minimum sector altitude, whichever is greater; cumulonimbus; if the sky is obscured, vertical visibility when available	✓	✓	✓	*
(p)	air temperature	✓	✓	✓	
(q)	dew point temperature	✓	✓	✓	†
(r)	altimeter setting(s);	✓	✓	✓	
(s)	any available information on significant meteorological phenomena in the approach and climbout areas including wind shear, and information on recent weather of operational significance	✓	✓	✓	
(t)	trend forecast, when available; and	✓	✓	✓	
(u)	specific ATIS instructions	✓	✓	✓	

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**Footnote**

- \* These elements are replaced by the term “CAVOK” whenever the conditions as specified in the PANS-ATM (Doc 4444), Chapter 11 prevail.
- † As determined on the basis of regional air navigation agreements.