

NAMIBIAN RADIO LICENSE VALIDATION

Introduction

This procedure is provided as a guide for applicants wishing to complete a Namibian Radio license validation, a requirement of a Namibian Pilot License Validation. Further to these requirements below the applicant should be familiar with the airspace in Namibia, which can be found on the latest topographical maps, or by way of a briefing with an instructor or ATC

General Information on Radio communication

Namibia is an ICAO state and radio procedures do not vary greatly from other ICAO countries or from any standard international aeronautical radio phraseology. The following information for radio validation details the required local knowledge. This has been compiled from the Namibian AIP, some of which is repeated in the Jeppesen and Aerad flight guides.

It is important to remember that Namibia mainly comprised of large areas of uncontrolled airspace with flight information provided through relay stations where available. The controlled portions of airspace around the main airports is procedural control (ie without radar). Manned and unmanned broadcasts of intentions plays a vital role in air traffic control and traffic separation.

Namibia is an IATA blacklisted country meaning the airspace is considered unsafe and therefore requires broadcasts on 126.9. These broadcasts are generally only given by aircraft operating at higher levels due to the complications of monitoring two frequencies by the lower flying traffic where conflict already arises with transition between 124.8, 124.7 and the assigned aerodrome frequencies (123.5 etc).

RADIO VALIDATION

Although the candidate is the holder of a foreign radiotelephony certificate, he/she is required to have the radiotelephony certificate validated in terms of the Namibian AIC 30.9. Candidates will be examined amongst others on the following but not restricted to:

1. Altimeter Setting Procedures

1.1 The altimeter setting procedures in-use generally conform to those contained in ICAO 8168 Vol. 1, Part 6 and are given in full below. Differences are shown in quotation marks.

1.2 Transition Altitudes (TA) for Namibia are as follows:

Hosea Kutako International Airport (FYWH)	10 000 feet
Eros Airport (FYWE)	10 000 feet
Walvisbay International Airport	4000 feet
Swakopmund Airport	4000 feet
Keetmanshoop Airport	5500 feet

- 1.3 QNH reports and temperature information, for the use in determining adequate terrain clearance, are provided in MET broadcasts and are available on request from the Meteorological Office in Windhoek or any Air Traffic Service Unit (ATSU). QNH values are given in hectopascals (hPa).
- 1.4 QNH values in inches (INS) and QFE settings are available on request.
- 1.5 All aircraft operating at level flight, at or above 1500 feet above the ground or water, irrespective of the weather conditions or whether the flight is operating on a VFR or IFR flight plan, shall observe these altimeter setting procedures.

2. Basic Altimeter Setting Procedures

- 2.1 A Transition Altitude (TA) is specified for each aerodrome. The TA for all points of departure and arrival within 25 NM of any aerodrome listed in the AIP or AIC, shall be the same as that listed for the relative aerodrome.
- 2.2 In VMC, flights departing or arriving at points beyond 25 NM from any of the aerodromes listed shall observe a height of 2000 feet above the ground or water as the TA.
- 2.3 In IMC, flights departing from or arriving at points beyond 25 NM from any of the aerodromes listed shall observe the lowest safest cruising level as the TA.
- 2.4 The Transition Level (TL) is that level at which the change in reference from 'flight level' used while en-route to 'altitude' used in the vicinity of an aerodrome, is made.
- 2.5 The TL will vary with variations in the barometric pressure so that the TL will never be less than 1000 feet above the TA within 25 NM of an aerodrome with an ATSU.
- 2.6 The vertical position of an aircraft when at or below the TA is expressed in terms of altitude, whereas such position are at or above the TL is expressed in terms of flight level (FL).
- 2.7. While passing through the transition layer, the vertical position of an aircraft is expressed in terms of altitude when descending and in terms of flight level when ascending.
- 2.8 All heights below the TL and outside 25 NM from the points of departure or from the destination, are expressed in flight levels on a standard atmospheric pressure of 1013, 25 hPa.

3. Take-off and Climb

- 3.1 A QNH altimeter setting will be made available to an aircraft when given taxi instructions by ATC.

- 3.2. The vertical position of an aircraft during climb is expressed in terms of altitude until reach the TL, above which the vertical position is expressed in terms of flight level.
- 4. Vertical Separation En-route
 - 4.1 Vertical separation during en-route flight shall be expressed in terms of flight levels.
 - 4.2. IFR and VFR flights, when in level cruising flight, shall be flown at such flight levels corresponding to the magnetic tracks and Semi-circular Rule.
- 5. Approach and Landing
 - 5.1. A QNH altimeter setting will be made available, by ATC in the approach or descent clearances and also during instructions to enter a traffic circuit.
 - 5.2. The vertical position of an aircraft during the descent phase is expressed in terms of flight level until reaching the TL, below which the vertical position is expressed in terms of altitude.

6. Flight Plans

The filling of flight plans is compulsory for the following flights:

- a) All flights conducted in controlled or advisory airspace.
- b) All flights in the public transport of passengers / cargo category.
- c) All international flights.
- d) All flights for which alerting service (SAR) are required.
- e) All flight between two manned airfields.

7. Search and Rescue

There are five types of SAR:

Type of SAR	For Which Flights	How Indicated on FPL	Example	When Will SAR Be Initiated
Normal	Between 2 manned aerodromes	SAR/NML	SAR/NML	1. Non arrival at destination. 2. Missed position report inside controlled airspace. 3. In emergency

SAR Normal En-Route	Between 2 manned airfields and also during the en-route phase of a flight	SAR/NML/EN-ROUTE	SAR/NML/EN-ROUTE	<ol style="list-style-type: none"> 1. Non arrival at destination. 2. Missed position report inside controlled airspace. 3. Missed position reports outside controlled airspace. 4. In emergency.
SAR with a specified ATSU after a specified time	Flights to unmanned aerodromes	SAR/ATSU/TIME	SAR/FYWH/ETA + 1 HR	<ol style="list-style-type: none"> 1. Non arrival at destination. 2. Missed position report inside controlled airspace. 3. Non cancellation of SAR. 4. In emergency.
SAR with a specified ATSU after a specified time and en-route	Flights to unmanned aerodromes	SAR/ATSU/TIME/EN-ROUTE	SAR/FYWH/1400/EN-ROUTE	<ol style="list-style-type: none"> 1. Non arrival at destination. 2. Missed position report inside controlled airspace. 3. Missed position report outside controlled airspace. 4. Non cancellation of SAR. 5. In emergency.
No SAR required	Flight to unmanned aerodromes	SAR/NIL	SAR/NIL	<ol style="list-style-type: none"> 1. Missed position report inside controlled airspace. 2. In emergency.

8. Unmanned Procedures used in the Windhoek FIR

Once released by FYWH INFORMATION, the pilot need to comply with unmanned procedures by reporting his intentions, altitudes and estimates on the specified frequency. It is the responsibility of the pilot-in-command to obtain the frequencies, to be used during the intended flight, during the pre-flight briefing. It is also the responsibility of a pilot to obtain all necessary information from the published Namibia AIP and AIC's.

The unmanned procedures consist of a number of transmissions, to indicate intentions, altitudes and positions.

1. 10 minutes from the unmanned airfield - Listen out on the specified frequency.
2. 10 – 15 NM from the unmanned airfield - 1st transmission consisting of:
 - a) “Airfield” Traffic *Tsumeb Traffic*
 - b) Call Sign *V5-ATC*
 - c) Aircraft Type *Cessna 172*
 - d) Point of Departure *From Eros*
 - e) Destination *To Tsumeb*
 - f) Position and Altitude *15 NM from the field at 8000 feet*
 - g) ETA *Estimating Tsumeb at 1000*
 - h) Next Position *Next call overhead the Field*
3. Overhead the airfield. From this position onwards the pilot should then report on all position in the traffic circuit i.e.
 - a) Downwind
 - b) Base Leg
 - c) Final Approach
 - d) Runway Vacated

The airspace around an unmanned airfield should be considered as a 5 NM radius and from ground level up to 2000 feet above ground level (*agl*), unless otherwise stated in the AIP.

9. Traffic Information Broadcast by Aircraft (TIBA)

Any aircraft operating outside controlled airspace shall follow the following procedures

- a) Aircraft operating at or below 1500ft AGL outside the lateral limits of all promulgated General Flying Areas should maintain a listening watch and broadcast regular position reports on frequency **124.8 MHz**
- b) Aircraft operating within 5 NM of an unmanned aerodrome and where no specific frequency has been allocated should make regular position reports relative to the aerodrome on frequency **124.8 MHz**. Where a specific frequency has been allocated, regular position reports shall be made on the appropriate frequency (see page 74)
- c) Aircraft operating above 1500ft AGL outside the areas mentioned in sub para a) above, shall maintain a listening watch and shall make regular position reports on the appropriate air traffic control/ flight information service frequency allocated for that area.
- d) En-route position reports shall be made at regular intervals containing information useful for collision avoidance, i.e. identification, heading, position/time level/altitude and next position and estimate.

Manned Airports

Eros	118,7 MHz
Windhoek Tower	118,1 MHz
Windhoek Approach	120,5 MHz
Windhoek FIS	124,7 MHz
Windhoek GFA	124,4 MHz
Walvisbay Approach +Tower	122,5 MHz
Swakopmund Tower	126,3 MHz
Katima Mulilo Tower	125,6 MHz
Ondangwa Tower	125,6 MHz
Keetmanshoop Tower	118,3 MHz
Grootfontein Tower	123,3 MHz

Unmanned Airfields

General Unmanned	124,8 MHz
Gliding	123,4 MHz
Bitterwasser (Gliding)	123,6 Mhz
Pokweni (Gliding)	123,5 MHz
Rostock Ritz Lodge	123,1 MHz
Arandis	123,5 MHz
Mokuti Lodge	123,5 MHz
Oranjemund	123,5 MHz

As previously stated, it still remains the responsibility of the pilot-in-command of an aircraft to complete a thorough pre-flight briefing. This will not just ensure that you collect the correct information, but will also ensure that you are a safe pilot.