CHARTS

NATO ALPHABET

INTERNATIONAL PHONETIC ALPHABET/MORSE CODE

A	. -	Alfa (**AL**-FAH)	**S**	. . .	Sierra (SEE-**AIR**-RAH)
B	- . . .	Bravo (**BRAH-VOH**)	**T**	-	Tango (**TANG**-GO)
C	- . - .	Charlie (**CHAR**-LEE) (or **SHAR**-LEE)	**U**	. . -	Uniform (**YOU**-NEE-FORM) (or **O**-NEE-FORM)
D	- . .	Delta (**DELL**-TAH)	**V**	. . . -	Victor (**VIK**-TAH)
E	.	Echo (**ECK**-OH)	**W**	. - -	Whiskey (**WISS**-KEY)
F	. . - .	Foxtrot (**FOKS**-TROT)	**X**	- . . -	Xray (**ECKS**-RAY)
G	- - .	Golf (GOLF)	**Y**	- . - -	Yankee (**YANG**-KEE)
H	. . . .	Hotel (HOH-**TELL**)	**Z**	- - . .	Zulu (**ZOO**-LOO)
I	. .	India (**IN**-DEE-AH)	**1**	. - - - -	Wun
J	. - - -	Juliett (**JEW**-LEE-**ETT**)	**2**	. . - - -	Too
K	- . -	Kilo (**KEY**-LOH)	**3**	. . . - -	Tree
L	. - . .	Lima (**LEE**-MAH)	**4**	. . . . -	Fow-er
M	- -	Mike (MIKE)	**5**	. . . . .	Fife
N	- .	November (NO-**VEM**-BER)	**6**	-	Six
O	- - -	Oscar (**OSS**-CAH)	**7**	- - . . .	Sev-en
P	. - - .	Papa (PAH-**PAH**)	**8**	- - - . .	Ait
Q	- - . -	Quebec (KEH-**BECK**)	**9**	- - - - .	Nin-er
R	. - .	Romeo (**ROW**-ME-OH)	**0**	- - - - -	Ze-ro

FORMATION FLIGHT

https://xg.ivao.aero/wp-content/uploads/2022/02/FAST_FKG_2.0.pdf

AIR TO AIR REFUELLING

Here you can find all information that you need to know about Air to Air Refuelling (AAR).

Within this example about AAR you will be able to find :

- General information
- AAR Track information
- Refuelling aircrafts and systems
- Pilot procedures
- ATC procedures

GENERAL INFORMATION

This information is not to teach you the process of AAR, but to inform you about the procedures how AAR is being done. This information is worldwide the same to all AAR procedures for pilots and controllers.

AAR is being done to keep aircraft longer in the skies without a necessary landing for the need of fuel. AAR is being done during various kinds of missions, long range flights, training purpose or when a airbase is not available.

Aircraft who are going to perform AAR are being called “receivers”.

AAR TRACK INFORMATION

AAR is only taken place in a specified part of an airspace. All NATO counties have there own specified AAR area. Such area or airspace is called an AAR track or orbit. You can compare this with a holding pattern. Within this information manual we mention the word track.

An AAR track, are all different from each other. Not every track has the same radials, headings, altitudes and speeds.

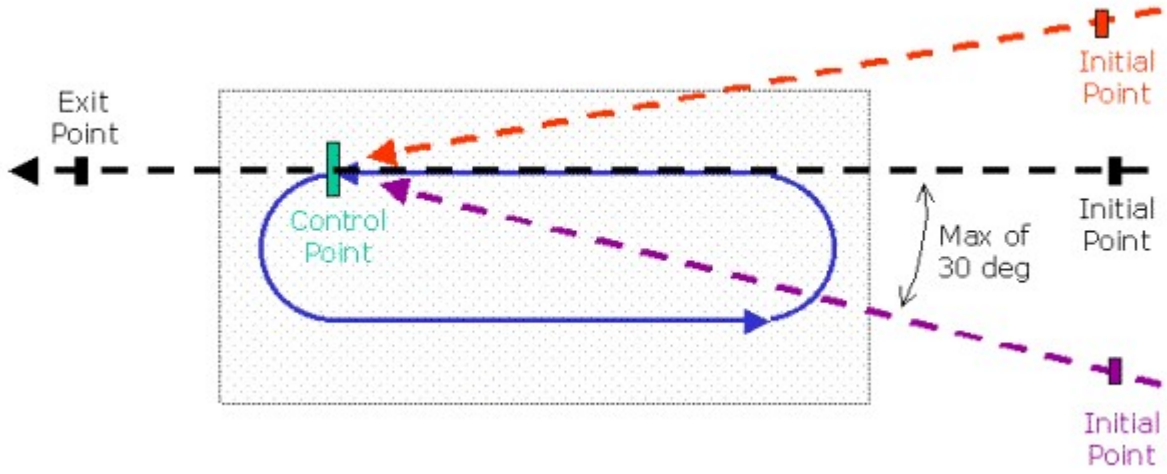
There are only four things that every AAR track has. Those are :

- Air Refuelling Initial Point (ARIP)
- Air Refuelling Control Point (ARCP)
- Air Refuelling Anchor Point (ARAP)
- Air Refuelling Exit Point (AREP)

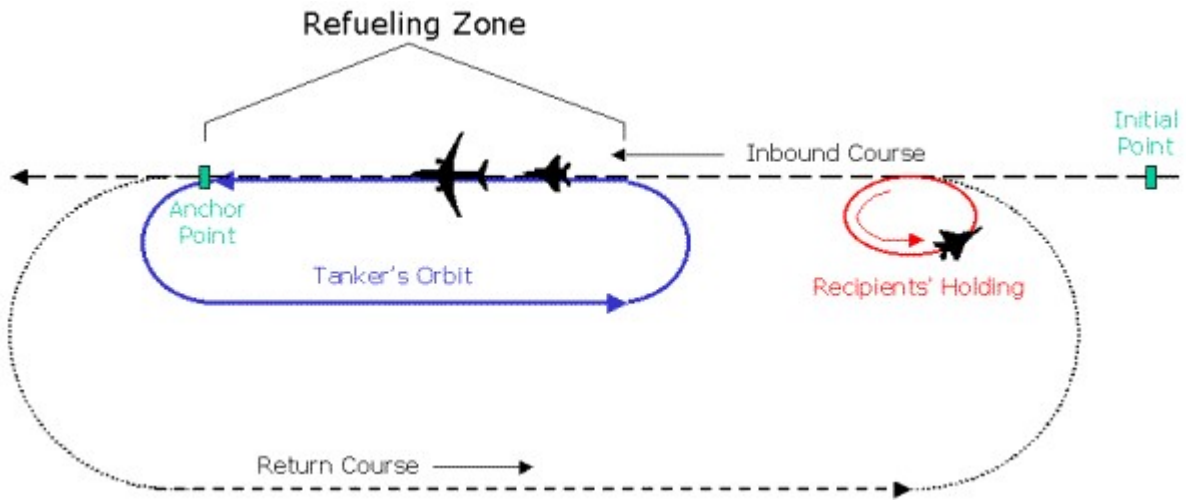
ARIP : This is the point where you going to enter the AAR track. From the ARIP you fly direct to the ARCP, from were you start to fly the AAR track.

Entering a AAR track can be done at two separate ways.

1.) Tanker aircraft and receiver fly together into the track. 2.) If the tanker aircraft is already inside the track, the receiver must enter via the ARIP and fly the track to the tanker aircraft.



When the tanker aircraft is already inside the track and busy with other receivers, you need to fly a holding pattern called “recipients holding” within the AAR track. When you are cleared to enter the track, ATC will notify you.



After AAR you need to exit the tanker track again at the AREP. This point is always in the same line with the ARIP. You need to leave the AAR track always 1000FT above the AAR aircraft.

REFUELING AIRCRAFT AND SYSTEMS

There are only a view aircraft that are able to refuel other aircraft within the skies above us. From those aircrafts you have several versions available. Those aircraft are in service with various kinds of air forces. Also, some modern military jets are able to refuel there own type of plane as well. The aircrafts below are specified AAR aircrafts only.

- KC-10
- KDC-10
- KC-130
- VC-10
- Tristar
- B707-338
- B767
- KC-97

Those AAR aircrafts can be equipped with two different kind of AAR systems. Because some aircraft require to be refueled from a drogue, and other from a boom system.

When a drogue is used, the aircraft must have a a refueling probe. The best way to compare a drogue is with a basket.

When a drogue is used, the pilot must be able to fly his aircraft with the refueling probe extended in to the basket. When a boom is used, the pilot must fly below the aircraft and the boom operator will place the boom on the aircraft. Both systems require accurate flying, and good coordination.

PILOT PROCEDURES

As a pilot who is going to perform AAR there are some procedures that he must follow. During AAR the pilot is in contact with ATC until he approaches the tanker aircraft. When near the tanker aircraft, pilots are in control with the tanker aircraft only, and not with ATC.

When entered the AAR track, ATC will guide you towards the tanker aircraft. It is allowed to enter the AAR track on own navigation and fly toward the tanker. Pilots can always ask ATC to guide them toward

the tanker aircraft. When the pilots is visual on the tanker aircraft, ATC will handover the receiving aircraft to the tanker. From now on, the pilot follows the given instruction by the tanker aircraft only.

All instructions given by the tanker aircraft must be repeated!

OBSERVATION

Is position is always on the right-hand side of the tanker aircraft. On this side all receivers should join up with the tanker aircraft.

PRE-CONTACT

When a pilot is cleared to pre-contact position by the tanker aircraft, that means the pilot is cleared to leave the observation position, and moves his aircraft about 3/5NM behind the aircraft. Now, the pilot is moving slowly forward until almost in contact position with the tanker aircraft.

CONTACT

Contact position means that you are now cleared to fly on to the boom/drogue to receive your fuel.

DISCONNECT

When disconnect you have received your fuel, and you move your aircraft to left-hand wing observation.

ATC PROCEDURES

In order to create a “as real as it gets” environment, ATC rules/communication are a must to all AAR pilots. For ATC procedures, we have the tanker aircraft and the receiver aircraft.

The tanker aircraft must be able to coordinate with ATC and the receivers. The receivers only coordinate with ATC until handed over to the tanker aircraft.

The tanker pilot must mention his heading, altitude and speed on first contact with the receivers. Also must the tanker pilots report every turn he is going to make inside the track to the receivers.

- Before entering the track the tanker pilot have to call a delay to ATC to get at the refueling altitude.
- ATC has to approve the delay and inform the tanker pilot about possible receivers.
- The tanker pilot has to call ATC when at the refueling altitude and beginning the tanker orbit.
- The tanker pilot then ask to ATC to let the first receivers come up inside the track for AAR.
- ATC will call the receivers that they are clear to enter the track
- Receivers will fly into the track and call ATC when they have visual contact on the tanker.
- Receivers must always be visual on the tanker aircraft before proceeding to the next step.
- Pilots will call ATC when visual on the tanker aircraft.
- ATC gives the receivers a handover to the tanker pilot.
- ATC must take care that there are no non-receivers inside the track when the tanker aircraft is starting the orbits.
- When the receivers are visual on the tanker and in contact with the tanker aircraft, then the tanker can place the receivers into several positions.
- Such as right-hand wing observation or one receiver directly to pre-contact position.
- The tanker is responsible for ATC inside the track with his receivers on his freq.

- When a receiver is in pre contact position there after can be contact position given. This means the position the will refuel.
- After refueling the receiver that just had his fuel will fly into a left-hand wing observation position.
- During AAR the tanker pilot must ask the receivers there idea's / plans after they are done refueling.
- Pilots need to report this to the tanker pilot.
- The tanker pilot then contacts ATC and report the idea's / plans of the receivers after refueling.
- ATC must then arrange clearance for the receivers after they are done with refueling.
- When this clearance is in, ATC will report that to the tanker pilot and the tanker pilot will pass it on to the receivers again.
- The tanker pilot will give the clearance to the aircraft and hand them over to ATC again

COMMUNICATION EXAMPLE

Below is a example how ATC is being done between tanker aircraft, receiver aircraft and ATC. This example indicates the tanker altitude at FL280.

NAF41 = Tanker Aircraft

NASTY = Receiver Aircraft

Dutchmil = ATC

Dutchmil NAF41 entering the tanker orbit, request block altitude.

NAF41 Dutchmil, enter the track climb FL280, block altitude FL260/FL290

Climbing FL280 inside the track copied the block for NAF41.

Dutchmil NAF41 steady FL280.

NAF41 Dutchmil roger request receivers ?

Dutchmil NAF41 only 1 receiver scheduled, callsign NASTY, operation on 108.000

NAF41 Dutchmil copied all.

Dutchmil Nasty with you FL250 inbound the tanker.

Nasty Dutchmil goodday identified proceed to the tanker track report initial point.

Nasty wilco.

Nasty tanker block FL260/FL290.

Nasty copied.

Nasty climb FL270 into the track report visual on the tanker.

Nasty wilco.

Dutchmil Nasty visual on the tanker 12’o clock high.

Nasty contact tanker.

Nasty wilco, see you later.

Nasty NAF41 read you loud en clear how me ?

Nasty read you loud en clear as well.

Nasty NAF41, cleared to climb in the block FL280, call ready.

NAF41 Nasty steady locked on behind.

Nasty is cleared to join, request offload ?

Nasty is cleared to join and request 2000 pounds of fuel.

Nasty NAF41 copied 2000 pounds offload and request intentions after refueling ?

Nasty would like to proceed in to the TRA's at FL330.

NAF41 copied.

Dutchmil NAF41

NAF41 Dutchmil go ahead.

Nasty request to leave at FL330 into the TRA.

NAF41 Dutchmil roger that, approved.

Nasty NAF41 after refueling cleared rightwing observation.

Cleared rightwing for Nasty.

Nasty NAF41 disconnected boom, cleared rightwing observation climb FL290.

Cleared rightwing FL290, squawk 1301 clear to leave.

NAF41 Nasty leaving the track thanks for the gas, see you next time.

Nasty your welcome bye bye sir.

Dutchmil Nasty with you FL290 leaving the track.

Nasty Dutchmil good day sir, identified climb FL330 into the TRA's.

Nasty Wilco.

Dutchmil NAF41, done refueling request RTB Eindhoven.

NAF41 Dutchmil copied proceed to SSB FL220.

ADDITIONAL INFORMATION

AAR tracks are always located at a specified altitude. Receivers must always enter the at track 1000FT below the tanker altitude. Receivers must always leave the at track 1000FT above the tanker altitude.

Because there are various tankers available on the internet, speed indications may not be the same by tanker aircraft and receiver.

COMBAT AIR PATROL

Combat air patrol (CAP) is a type of flying mission for fighter aircraft.

Public source: http://en.wikipedia.org/wiki/Combat_air_patrol

Military source: http://www.dtic.mil/doctrine/jel/doddict/natoterm_index.html

A combat air patrol is an aircraft patrol provided over an objective area, over the force protected, over the critical area of a combat zone, or over an air defence area, for the purpose of intercepting hostile aircraft before they reach their target. Combat air patrols apply to both overland and overwater operations, protecting aircraft, fixed and mobile sites on land, and ships at sea.

Known by the acronym CAP, it typically entails fighters flying a tactical pattern around or screening a defended target, while looking for incoming attackers. Effective CAP patterns may include aircraft positioned at both high and low altitudes, so as to shorten response times when the attack is detected, The first CAPs were characteristic of aircraft carrier operations, where CAPs were flown to protect a carrier battle group, but the term has become generic to both Air Force and Navy flight operations. Capping operations differ from fighter escorts in that the CAP force is not tied to the group it is protecting, is not limited in altitudes and speeds it flies, and has tactical flexibility to engage a threat. Fighter escorts typically stay with the asset they are supporting and at the speed of the supported group, as a final reactive force against a close threat. When an escort engages, the supported force is left unprotected.

HOW TO PLAN A CAP

If you have FS-Navigator it's not so difficult. You have to imagine that a cap is a area where 1 or more aircraft can fly in at a specific height. (e.g.. FL100, FL150 etc.) When you have to patrol above low targets (ships, buildings, bridges etc.) you need to have your CAP at a low altitude, below FL100. A CAP has always a CAP SWITCHON TIME or a CAP SWITCHOFF TIME.

Plan the CAP, use standard flying route to the CAP or a TACAN approach. Take care that in your flight plan you take the following additional remarks CAP TYPE (eg HAVCAP) and RADIUS (NM)

Example: EHV STUI HAVCAP 50NM VKL EHV

Where the aircraft MUST be present between those two times. By using timeslots for CAPS it's possible to protect a large area with few aircraft.

Suppose you have 4 aircraft available then it's wise to split into two CAPS. CAP-A and CAP-B Where CAP-B switch-on time needed to be 5 minutes before the switch-off time of CAP-A. And if you put both caps at various heights (e.g. min. 5000ft spacing. You have optimum cap coverage for that area. If you want to protect a AAR route (tanker aircraft) your CAP must be planned as a square maximum 5000ft above the tanker flight level.

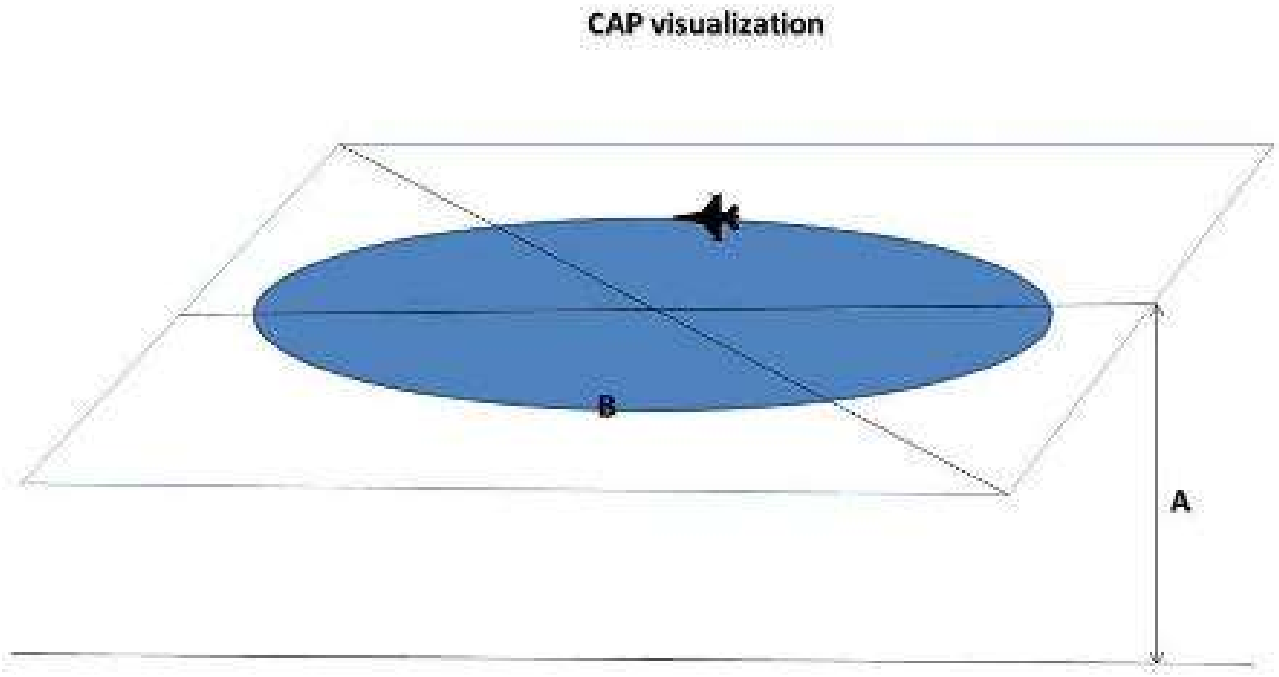
For example: In the Netherlands we fly the carol-track with AAR at FL290. CAP practice will be at FL295 when protecting the Tanker

A rule of thumb is that you must be able to be within a minute at striking range of any target in your CAP area.. So the size of a CAP is depending of:

1) Number of aircraft 2) Type (e.g. Speed of aircraft) 3) Endurance of aircraft (how long on how many fuel)

I would suggest to start practice with a FASTCAP.

A CAP a virtual square area in the air where the route must be flown within.. See drawing:



Where A will be the CAP PLANNED HEIGHT

Where B will be your planned CAP eclipse or circle pattern (Not longer than 200NM radius)

Take in the planning a reserve fuel rate of approx 15 to 20 minutes.

I hope this gives you some directions how to think, and plan. When I worked for the AOCC at Münster we planned a lot of these type of CAPS for the NATO. In reality it's heavy used by air forces to obtain air-dominance with few resources and maximises the effectiveness of the aircraft.

For operations at IVAO we have to take special care of the IVAO regulations.. So we will limit the CAPS into following;

- FastCAP: Combat air patrol for fighter strike aircraft.
- FORCAP: “Force Combat Air Patrol”, a patrol of fighters maintained over the strike force, essentially an escort.
- HAVCAP: “High Asset Value Combat Air Patrol”, flown to protect a high-value asset such as an AWACS or a tanker during its specific time on station.
- RESCAP: “Rescue Combat Air Patrol”, a fighter force, often ad hoc in organization, used to protect both persons to be rescued from a ground threat, and aircraft or other rescue forces from both ground and air threats.
- SARCAP: “Search and Rescue Combat Air Patrol”, an earlier version of RESCAP.
- TARCAP: “Target Combat Air Patrol” is flown over or near a strike target in order to protect specialized aircraft such as the tanker aircraft from harassment by enemy fighters.

PHRASEOLOGY

Not for operational use

This phraseology is giving you examples of Air Traffic Control (ATC) for the use by Special Operations on IVAO. In some occasions it can be used for civilian purposes as well.

This may and can be use by overall ATC between pilots and controller on IVAO network. This will show you in complete text examples how voice communications goes around the globe.

In this example you are able to find :

- Common information
- Basic, Standard and Advanced
- Used terms
- Emergency procedures
- Radio communication

COMMON

Within the overall aviation world, communication is a very essential part of it.

Communication must be used to let all aircraft fly through the skies without any problems.

Pilots and ATC must use communication from the beginning until the end.

Without communication the skies above us would be one big mess.

That's also what we on IVAO don't want to create.

Language Within aviation the language English is being used only. It's also permitted to use own language as a pilot or ATC only, when some big misunderstandings take place. (To fellow country members only)

English language must be maintained and present at all times.

Transmission To transmit a message as a pilot to ATC or as ATC to a pilot there are some things you need to keep in mind before transmitting.

- Before transmitting a message, listen first carefully to the frequency. You don't want to interfere with others.
- Now how to handle your microphone and teamspeak.
- Use a normal transmission mode. Speak clearly and slowly. This way you are better to understand.
- Maintain a constant transmission speed. Don't shout and change your speed of talking.
- Incase of an emergency, stay calm. Don't start yelling and doing all crazy.
- Use short breaks between numbers when transmitting. This way confusions don't have to occur.
- Push your transmission button before starting to talk. Let is go after you finished.
- Never use voice activation for teamspeak. This way you can interfere without any idea.

When you transmitted a message and made a mistake, always use the term "correction "to correct you message to the own you are transmitting to.

The best way to give your correction, you could transmit the message again.

Now you can use "correction, I say again "

Priority Transmissions that begin with emergency calls are always first!

"PAN-PAN-PAN ": Indicates something has goes wrong. Not a emergency call yet.

“MADAY-MAYDAY-MAYDAY “: Indicates a emergency in progress.

Readability When a transmission is not clearly, or is clear you can use “Unreadable, Say Again, Loud en Clear.

Example: Reading you loud and clear with some background noise.

Word/Phrase	Meaning
ACKNOWLEDGE	Let me know you have recieved and understood this message.
AFFIRM	Yes (note: The word AFFERMATIVE is used by some nations).
APPROVED	Permission for proposed action granted.
BREAK	Indicates the seperation between portions of messages.
BREAK, BREAK	Indicates the seperation between messages to different aircraft when busy.
CANCEL	Annul the previously transmitted clearance.
CHECK	Examine a system or procedure (no awnser is expected).
CLEARED	Autorized to proceed under the conditions specified.
CONFIRM	Have I correctly recieved the following ? Or did you correctly recieve this ?
CONTACT	Establish radio contact with...(controller to controller).
CONTINUE WITH	Used when it is already known that an aircraft has already established contact.
CORRECT	That is correct
CORRECTION	An error has been made in the transmission.
DISREGARD	Consider that trnsmission as not send.
FREE CALL	Call another unit as designated. Handover to other unit not obtained.
GO AHEAD	Proced with your message.
HOW DO YOU READ	What is the readability of your transmission.
I SAY AGAIN	Repeat your last transmission
MONITOR	Listen out on... (frequency)
NEGATIVE	No or permission not granted or that is not correct
OVER	My transmission is ended and expect a response from you.
OUT	The transmission is ended and no response is expected.
PASS YOUR MESSAGE	Proceed with your message.
READ BACK	Repeat all, or the specified part, of this clearance or part there of.
REPORT	Pass the following information.
RECLEARED	A change has made to your last clearance or part of.
REQUEST	I should like to know... or I wish to obtain.
ROGER	I have recieved all your last transmission.
SAY AGAIN	Repeat all, or the following part of your transmission.
SPELL	Spell portion indicated phonetically.
SPEAK SLOWER	Reduce your rate of speech.

STANDBY	Wait and I will cann you back.
VERIFY	Check and confirm.
WILCO	I have recieved your message, understood, and will comply with it.

Use of term **Cleared** Can only be used by the following options:

- Cleared ILS approach
- Cleared for departure route
- Cleared for take-off

The word take-off may only be used it a aircraft is really cleared to. Otherwise use the word departure.

Authorization to flight routes such as airways, altitudes and intersections are used with the term “Cleared to/off “

To use the “cleared to “term can also be applied by:

- Cleared to cross runway
- Cleared to land
- Cleared for tough and go.

Never use the term “cleared to/for “by the following:

- Start-up (start-up approved)
- Crossing a runway (Crossing approved)
- Taxi (taxi to ….)
- Exit runway (vacated rwy)

ATC may also never use clear to in case of climb or descent

ATC shall use “ climb to and descent to “

Example

(ATC) KLM123 descent to FL100 …

(Pilot) KLM123 leaving FL150, descending to FL100

Also when a heading is given you must use the word “ heading ” before it.

Example

KLM123 turn right heading 240.

What you hear a lot is KLM123 turn right 240.

Some pilots may understand this as heading 40.

Issuance of a clearance

- (aircraft) cleared to …
- Recleared (amended clearance details)
- Recleared (amended route portion) TO

(significant point of original route)

- Enter control area or zone via (significant point) at (level) at (time)
- Leave control area or zone at (level)

(or climbing or descending)

- Join (specify) at (significant point) at (level) at (time)

Indication of route and clearance limit

a. From (place) to (place)

b. To (place) followed as necessary by :

- Direct
- Via (route and/or reporting points);
- Via flight plan route
- Via (distance) arc (direction) or (name of DME station)
- Out of control area or zone (distance) (direction) or (place)

Maintenance of specified levels

- Maintain (level) to (significant point).
- Maintain (level) until passing (significant point).
- Maintain (level) until (time).
- Maintain (level) until advised by (name of unit).
- Maintain (level) until further advice.
- Maintain (level) while in controlled airspace.
- Maintain at least (number) feet (or meters) above or below (aircraft identification).

The term 'MAINTAIN' is not be used in lines of descend or climb when instructing an aircraft to change level.

Specification of cruising levels

- Cross (significant point) at (or above, or below) (level).
- Cross (significant point) at (time) or later(or before) at (level) (maintain own separation and VMC).
- Cruise climb between (levels) (or above) (level).
- Cross (distance) (name of DME station) DME at (or above, or below) (level).

Emergency descent

- Emergency descend (intentions)
- Emergency descent at (significant point or location) all aircraft below (level) within (distance) of (significant point or navigation aid) leave immediately (followed as necessary by specific instructions as to direction, heading or track, etc.).

BASIC VOICE PHRASEOLOGY

This will show you in text how basic ATC will go. (UNIT) means the callsign of the ATC station. (C/S) callsign the aircraft.

REQUEST FOR SERVICE :

Pilot :

Unit)…….(C/S) (C/S) Type, Position and Heading, Altitude/flight level

Any other information (destination, intentions, etc) Request…….(service)

Example : Amsterdam Radar, KLM123, KLM123 is a B747-400, 12NM east of SPY, Heading 150, at FL280 inbound EEL, Request flight following.

IDENTIFICATION :

Radar :

ATC (C/S)

```
for identification turn L/R heading

(length of time e.g. 'For 1 minute'

may be added)
```

This procedure is not a standard; this maneuver may be requested by ATC only in case of doubt about aircraft identification (not squawk identified for example)

Pilot Turning L/R heading ….(C/S)

SSR :

ATC (C/S) Squawk ####

Pilot Squawk #### (C/S)

ATC (C/S) Squawk ident

Pilot Squawk ident (C/S)

ATC (C/S) Squawk standby

Pilot Squawk standby (C/S)

On identification :

ATC (C/S) Identified (position)

Service given :

ATC (C/S)

* Radar control

* Radar advisory

* Radar information

* Radar monitoring

TRAFFIC INFORMATION :

ATC (C/S)

```
Traffic L/R ... o'clock ... miles,
```

```
                    Flight level/altitude (if known)

                     (additional information e.g.

                     crossing L/R indicating .... ft above/below, under our
control no confliction)
```

AVOIDING ACTION :

Radar control

ATC (C/S) (If necessary, additional 'IMMEDIATELY')

```
                         Avoiding action turn L/R heading (Pilot is to reply
acknowledging turn)

                         (followed by traffic information)
```

Radar advisory : Remarks :

ATC (C/S)

```
                     Traffic information if not

                     sighted turn L/R heading....
```

Pilot Turning, looking, maintaining, Pilot is to reply stating intentions

```
                     (C/S)
```

ATC (C/S) at controllers discretion/late sighting or

```
                     Avoiding action if not sighted

                     turn L/R heading ... traffic

                     was........
```

Pilot Turning, looking, Pilot is to reply stating intentions

```
                     maintaining, etc.

                     (C/S)
```

Radar information :

ATC Traffic information

Pilot is to acknowledge but is responsible for own avoiding action. If aircraft is maneuvering

```
then traffic information is to be given by reference cardinal points i.e.
traffic 5 miles

north, heading south
```

HEADING : Remarks :

ATC (C/S)

* Request heading

* Your heading should be …

* Continue heading

* Resume original heading

TURNS :

ATC (C/S) Pilot is to reply acknowledging instructions

* Turn L/R heading …

* Stop turn heading …

* Continue turn heading …

ALTITUDE/HEIGHT/FLIGHT LEVEL :

ATC (C/S) Pilot is to reply acknowledging instructions

* Request altitude/height/ flight level

* Maintain: …. fl/FL

* Descend/climb to: altitude ….. Ft/FL …..

* Report: leaving, reaching, passing …. Ft/FL …..Level

RESTRICTIONS RATE OF DESCENT/CLIMB :

ATC (C/S) Pilot is to reply acknowledging instructions

```
                    Descend/climb with 1500 ft

                    per minute or less to FL 330,

                    reason TCAS
```

RADAR SERVICE TERMINATED :

ATC (C/S)

* Radar service terminated

* No radar service for next … miles as you pass through/close to the radar overhead/permanent echoes/ weather clutter

FLIGHT CONDITIONS :

ATC (C/S) only when required

* Request flight conditions

* Confirm VMC/IMC

* Report any change in flight conditions

Pilot Pilot replies as appropriate

```
                    (C/S)
```

AIRCRAFT TYPE :

ATC (C/S) Request aircraft type

Pilot (ACFT type) (C/S)

STEER :

Pilot (Unit)(C/S) Request steer (heading)

ATC (C/S) Steer (heading or degrees)

Standard R/T Communication for Taxi/Take Off (Fixed wing aircraft only) At dispersal/platform : Remarks:

Start up (if applicable)

Pilot (Unit)(C/S) 1) Except for single/dual seated fighter aircraft (Position) (Intention) (POB1) Information(ATIS Information) Request start up.

ATC (C/S) (Unit) POB1) Start up approved Information correct/not correct (RWY)(QNH), Time

Pilot Roger, start up approved (RWY)(QNH) (Time checked)

Example :

Amsterdam Startup, KLM123 at gate D5, with 1 POB, received information C, request start up.

Clearance :

ATC (C/S) are you ready to copy your clearance ?

Pilot Ready or Stand by, go ahead

ATC (C/S) cleared to …… via …….. (Via flight planned route) …….. (Clearance limit) (If applicable) Squawk ….

Pilot Cleared to ……. via ……. (Via flight planned route) …….. (Clearance limit) Squawk ….

Clearance will be given during Startup or during taxi.

At dispersal : Remarks :

Pilot (Unit)(C/S) Position of aircraft may be required by ATC.

```
              (C/S) Request taxi                                    POB
may be required by ATC
```

ATC (C/S) (Unit) (C/S) Taxi RWY …. QNH ……hPa/inch. Aerodrome (AD) elevation (if required) …. Ft/m (any additional ATC-information) or RWY …. Left or RWY … right is to be used for (C/S) (Unit) (C/S) Hold parallel RWY installation

Pilot (C/S) If a taxi instruction includes the crossing of a …..(RWY) …….(QNH) RWY, a taxi-limit has to be included at all times or (C/S) Hold

At holding point :

Pilot (C/S) Line-up and hold' may be used by ATC when it Ready for departure is possible to permit an aircraft to the take off

```
                                                                    position
but not for actual take off.
```

ATC (C/S) Cleared take off surface wind … (clock code) … knots (departure procedure)(if applicable) or (C/S) line-up (and hold) surface wind …

```
                (Clock code) ... knots
```

or (C/S) Hold

Pilot (C/S) Cleared for take off or (C/S) line up and hold

```
        Or (C/S) hold                                                switching
from 'ground  control' to
                                                                    tower
frequency is only permitted after prior
                                                                    approval
from 'ground control'
```

Standard R/T Communication for Taxi/Take Off (Helicopters)

At dispersal/helisquare : Remarks:

Pilot (Unit) (C/S) Position of helicopter may be required by ATC (C/S) POB Request taxi or Request hover taxi or Ready for departure

ATC (C/S) (Unit) (C/S) POB Taxi helisquare …….. or RWY … QNH …….hPa/inch. AD elevation …. Ft/ m (if required). Surface wind … degrees …… knots or Hover taxi or Hold

Pilot (helisquare/RWY) Wind …. Degrees ….(knots) ….(QNH) or (C/S) Holding

At holding position :

Pilot (C/S) Ready for departure

ATC (C/S) Cleared take off or (C/S) Hold

Pilot (C/S) Cleared for take off or (C/S) Holding

Standard R/T Communication Approach & Landing VFR (Fixed Wing Aircraft)

Overhead pattren:

Approaching and when approximately 3 minutes from initial point

```
Remarks:
```

Pilot (Unit) (C/S) 1) except for single/dual seated fighter aircraft (C/S) POB 1) Position ……. (……FL/Altitude) Information……..(ATIS), (If applicable) for landing/touch and go/low approach

ATC (C/S) (Unit) (C/S) POB 1) RWY … (R/L) QNH (fighters may prefer QFE instead of QNH)….. HPa/inch. AD elevation …

```
               Ft/m (if required)
```

Information correct (if applicable) (Any additional ATC-information)

Pilot (C/S) (RWY) (QNH) (fighters may prefer QFE instead of QNH)

At initial point : (at least 3 NM (5 km) generally around 10 Nm

Pilot (C/S) Initial to land/ full stop, roll/touch and go, overshoot/low approach

ATC (C/S) (pass circuit traffic information) surface wind … (clock code) …. Knots

```
                Cleared for the break (information if required), surface wind …
report 180 point (=downwind) gear down and locked (or 3 greens)
```

Pilot (C/S)

On the break :

Pilot (C/S) on the break

ATC (C/S) Number …

Pilot (C/S) Number …

At final/base leg :

Pilot (C/S) Final/base, gear down (and locked)/three greens

ATC (C/S) Slow lane L/R (if applicable) cleared to …….. (Intentions)

Pilot (C/S)

Rectangulair Pattern : Remarks:

Approaching and when approximately 1 minute before entering the CTR

Pilot (Unit) (C/S) (C/S) POB 1) 1) except for single/dual seated fighter aircraft Position ……. (…….. FL/ Altitude) Request joining/landing instructions

ATC (C/S) (Unit) (C/S) POB 1) Report L/R-hand downwind RWY … QNH (fighters may prefer QFE instead of QNH) ….. HPa/inch. AD elevation …. Ft/m (if required) (any additional ATC-information)

Pilot (C/S) (RWY) (QNH) (fighters may prefer QFE instead of QNH)

If pilot wishes straight in-approach after first call

Pilot (C/S) Request straight in- approach ……. (Intentions)

ATC (C/S) (straight in) approved report…… (Position as required by ATC) or (C/S) Negative (plus additional information as required)

Pilot (C/S) Report (position) or (C/S) (acknowledge instructions)

At downwind position :

Pilot (C/S) Downwind (intentions)

ATC (C/S) Number ….. Wind in degrees for civil traffic and military Surface wind …. (Clock code/ transport aircraft degrees) …. knots or (C/S) Orbit (L/R) (at …. ft/m)

Pilot (C/S) or (C/S) Orbit (L/R) (at …. ft/m)

At final/base leg : Remarks:

Pilot (C/S) Surface wind may be passed with final Final/Base, gear down (and locked)/ clearance if significant three greens

ATC (C/S) Cleared to ……. (Intentions) or If pilot fails to state position of landing

```
               (C/S) Continue                                                gear
ATC has to remind pilot to recheck and
```

or confirm 'Gear down' (C/S) Go around

Pilot (C/S) Cleared to (intentions) or (C/S) Continuing or

```
               (C/S) Going around
```

After overshoot/touch and go :

Pilot (C/S) Returning to initial/ request (Closed pattern, short initial, SID)

In case of request for closed pattern:

ATC (C/S) Closed approved, report downwind/negative, return (or other relevant info)

When closed approved:

Pilot (C/S) Closed approved, wilco

Pilot (C/S) Downwind

ATC (C/S) Number …., winds…..

Pilot (C/S) Number ….

After landing and vacating the RWY :

Pilot (C/S) RWY vacated

ATC (C/S) Roger/ roger contact ground on frequency …..

In case of frequency change

Pilot (C/S) switching to …..

AFTER LEAVING THE RWY :

Pilot (C/S) RWY vacated

Standard R/T Communication Approach & Landing VFR (Helicopters) Approaching and when approx. 1 minute before entering the CTR

Pilot (Unit) (C/S) (C/S) POB …….. Position …… (….. FL/Altitude) Request joining/landing instructions

ATC (C/S) (Unit) (C/S) POB …….. Report ……(position) helisquare or RWY … (L/R-hand) QNH …. HPa/inch. AD elevation ….. Ft/m (if required). Surface wind …. (Degrees) …. knots (any additional ATC information)

Pilot (C/S) (helisquare/RWY) (wind)…. Deg (QNH)……

If pilot wishes straight in-approach after first call

Pilot (C/S) Request straight in-approach

ATC (C/S) Approved or negative AD information is passed as required (plus further instructions)

Pilot (C/S) (acknowledge instructions)

At downwind position :

Pilot (C/S) downwind (plus intentions)

ATC (C/S) Number ….or other pertinent instructions

At final position :

Pilot (C/S) Final gear down Surface wind may be passed with final (and locked)/three greens clearance if significant

```
                (If appropriate)
```

ATC (C/S) Cleared to (intentions)

Pilot (C/S) Cleared to (intentions)

Standard R/T Procedure TACAN IAP/SID Instrument Approach Procedure:

Initial call at least 3 minutes prior to arrival over facility or as directed by ATC.

```
Remarks:
```

Pilot (Unit) (C/S) POB 1), Heavy 2) 1) Except for single/dual seated fighter ACFT (C/S) Position…….. 2) If applicable ……..FL/Altitude Request TACAN-approach for RWY… (full-stop/ overshoot/touch and go)

ATC (C/S)(unit) (C/S) Report IAF

```
                RWY ... (or any other points as required by ATC)

                (Aerodrome-/weather information should be passed) MDA ......ft.
Request your minimum
```

Pilot (C/S) (acknowledge instructions)

Initial Approach Fix :

Pilot (C/S) IAF

ATC (C/S) (QNH) Depending on radar availability and local cir- hPa/inch cleared for TACAN-cumstances, the pilot can be ordered to report approach RWY… (Additional positions/ distances/altitudes information) report … (Fighters may prefer QFE instead of QNH)

Pilot (C/S) Report…

Final Approach Fix :

Pilot (C/S) FAF with gear down Landing QNH is to be confirmed as set if not already checked. If approach is radar monitored,

```
controller is to advise pilot approaching the published missed approach point

(Fighters may prefer QFE instead of QNH)
```

ATC (C/S), continue approach 1. Clearance to be obtained at 4 NM touchdown. (If no TWR clearance available) 2. In case of full stop, slow lane L/R (if applicable) or cleared to land/overshoot/ touch and go, the wind is……..

Pilot (C/S) (acknowledge instructions

Aerodrome in sight or Missed Approach :

Pilot (C/S) RWY in sight or (C/S) Carrying out missed approach

Standard Instrument Departure :

Initial call pilot to approach when airborne or in take off-roll if so arranged between TWR and APP.

Pilot (Unit) (C/S) (C/S) climbing SID ……..(number or applicable SID), passing ……..(FL or altitude) for …….. (Cleared FL or altitude)

ATC (C/S) (Unit) (C/S) identified 1) 1) If radar is available Report passing FL … (report FL …/report reaching FL …/report turning at ….. NM)

Pilot (C/S) will report passing FL … (reaching FL …/turning at … NM)

Pilot (C/S) passing FL … (reaching FL …/turning at … NM)

ATC (C/S) Contact (Unit) (C/S) on frequency ……

Pilot (C/S) (Unit) (C/S) frequency ……..

Standard R/T procedures ILS

On initial approach approximately 10 minutes flying time from destination

```
Remarks:
```

Pilot (Unit) (C/S) (C/S) POB 1) Position….. 1) Except for single/dual seated fighter ACFT ….. FL/Altitude request ILS-approach to land/full stop, roll/touch and go, overshoot/low approach

ATC (C/S) (Unit) (C/S) POB 1) Pilot is to be passed the procedure cleared ILS-approach RWY minimum (DA) report localizer established (or DME range …). Additional radar directing may be required

```
                                                                    before the
aircraft is established on the
```

```
                                                                    localizer,
anyhow in case of a turn of more
                                                                    than 30
degrees, around 5 Nm before beginning

of the descent in order to let pilot time enough to

perform final cockpit check
               (C/S) QNH.....
```

Pilot (C/S) QNH…..hPa/inch

```
Localizer established :
```

Pilot (C/S) Localizer established

ATC (C/S Report glide path descending

Interception of glide path :

Pilot (C/S) Glide path descending, gear down(and locked)/three greens

ATC (C/S)

Final clearance :

ATC (C/S) ….miles If approach is monitored by a radar controller (range as specified locally) then the pilot is to be advised when from touchdown, cleared to approaching his declared DA or procedure land/full stop, roll/touch and go minimum overshoot/low approach, surface wind …. (Clock code) ….knots slow lane L/R (if applicable)

```
Pilot repeats clearance
```

Basic Voice Phraseology For Radar Approach Procedures

On initial approach approximately 10 minutes flying time from destination

```
Remarks:
```

Pilot (Unit) (C/S) (C/S) POB 1) 1) Except for single/dual seated fighter ACFT Position……. ….. FL/altitude Request PAR/ASR-approach to land/full stop, roll/touch and go, overshoot/ low approach

ATC (C/S) (Unit) (C/S) Identified. POB 1) this will be a L/R-hand pattern for PAR, PAR AZ only or ASR RWY …, MDA/DA……ft/m. Request your minimum. (Military traffic only)

Pilot (pilots repeat) (C/S) and say minimum (Military traffic only)

ATC (C/S) QNH……..hPa/inch

```
                (fighters may prefer QFE instead of QNH)
```

Pilot (C/S) Speed may be specified for separation in the

```
 QNH.....                                                    radar pattern.
If QNH remains the same it is


unnecessary to carry out altimeter checks on

                                                                    aircraft
in multiple training circuits
```

Handover final controller (if required)

ATC (C/S) ……(range), Contact final controller on frequency ……..

Pilot final controller (C/S) QNH…..minimum…..

ATC (C/S) identified. (Plus other instructions as required)

Pilot (C/S) (pilots repeat)

Glide path and rate of descent (PAR)

ATC (C/S) Approaching glide path approximately 1/2 NM before GPIP (or other glide

```
               (C/S) Begin descent now                                  path
warning as laid down in local operating procedures)
```

for a …DEG glide path acknowledge descending

```
              Instead of …DEG ATC may give the rate of descend requested
according to speed approach
```

Pilot (C/S) descending

ATC Do not acknowledge further instructions

```
               unless requested. On glide path. Slightly

               above/ below glide path. Adjust rate of

               descent. Correcting slowly/rapidly/nicely

               to glide path. Well above/below glide path.

               On glide path  resume normal rate of descent
```

Descent (PAR AZ only/ASR)

ATC (C/S) Approaching descent Approximately 1/2 NM before descent (or other point advisory altitude will be passed descent warning as laid down in local operating at intervals during this approach procedures)

```
                (C/S) Begin descent now
```

acknowledge descending

Pilot (C/S) descending

Range

ATC ……..miles from ……..(location) to be passed at 1 NM intervals, from 2 miles at 1/2 NM intervals

Heading

ATC Heading is good. Well/right/left of centerline. Correcting rapidly/slowly/nicely to centerline. On centerline

Turns

ATC Turn L/R ….DEG Heading…….

Glide path failure during PAR

ATC (C/S) Glide path failure. Procedure continues until published Missed Minimum descent altitude is …. Ft Approach Point (MAP) for AZ only approach acknowledge

Pilot (C/S) MDA …ft

Undercarriage check

ATC Check gear down(and locked)/ three between 2 and 3 NM from touchdown greens, acknowledge

Pilot (C/S) Gear down (and locked)/ three greens

Clearance Remarks:

ATC (C/S) Clearance to be obtained from TWR-controller

```
                        a.      Cleared to land/full stop,
roll/touch and go, overshoot/ low              a. normally at 4 NM but not less
than 2 NM
```

approach surface wind … (clock code) …….knots

```
                  b.     Final clearance delayed continue                b.
indicating required clearance may be forth-coming
```

approach

```
                  c.     Break off this approach – acknowledge        Slow lane
L/R (if applicable)
```

(further instructions as required)

Pilot (C/S) Acknowledge (repeat any further instructions)

At pilots minimum

ATC When passing your minimum take over visually

Pilot Insight

ATC End of Radar vectoring, contact Tower …

At DA or MDA

ATC Passing DA or MDA advisory information from now on

Pilot Any message as required, e.g. (C/S) starting Missed Approach

```
                                                                    Controller
has to pause to allow pilot to pass

                                                                    any
required message
```

At touchdown (or earlier if unable)

ATC (C/S) Over touchdown…. Aircraft to be transferred to TWR-controller or when appropriate (range) Radar service terminated

Standard R/T For (Simulated) Flameout Procedures

Initial Call Remarks:

Pilot (Unit) (C/S) (C/S) Position and heading FL/altitude….Squawking…. Request SFO

Homing (by Radar or TACAN)

ATC (C/S) (Unit) (C/S) Identified Radar approach, turn L/R heading … , report steady, set QNH ….. HPa/inch

Pilot Turning on/to/steady heading … , QNH ….. Set (C/S)

ATC (C/S) Pass FL/altitude/ height with all transmissions

Pilot FL/altitude/height (C/S)

ATC (C/S) Weather……., RWY…., length…..available (including cable state)

Pilot FL/altitude/height…..(C/S)

ATC (C/S) Remain on this TWR-controller assumes control and rigs frequency for the local controller appropriate cable if applicable or contact tower on…… (Frequency)

Overhead procedure

Initial Call :

Pilot (Unit) (C/S) (C/S) Request SFO

```
                                                                    aircraft
with a request for a 'Flameout recovery'
```

ATC (C/S) (Unit) (C/S) Report high key rwy … QNH ….. HPa/inch

Pilot (C/S) (acknowledge)

High key

Pilot (C/S) High key

GAT/OAT

Based on the understanding that common definitions, procedures and regulations for the handling of military air traffic in the various States are a prerequisite for a fully integrated civil-military air traffic environment, in a first step, definitions for GAT and OAT were identified.

General Air Traffic is defined as: “all flights which are conducted in accordance with the rules and procedures of ICAO and/or the national civil aviation regulations and legislation”.

Operational Air Traffic is defined as: “all flights which do not comply with the provisions stated for GAT and for which rules and procedures have been specified by appropriate national authorities”.

Harmonisation of OAT/GAT covers three main actions.

- Identify the various types of military operations witch can be accomodated by applying the same, or nearly the same, rules and procedures as applied for civil aviation (GAT) and those who cannot require seperate rules and procedures (OAT)
- Defining common rules and procedures for handeling military operations within the airspace.
- Common principles for the safe handeling of civil and military traffic in a mixed environment within several airspaces.

Various types of Air Traffic

Civil flights, which come under the category of general air traffic (GAT: IFR or VFR), including certain military traffic.

Military flights, which come under the category of military operations traffic and, and acceptance flight tests. Military air traffic (OAT) includes both military operations traffic and acceptance flight test flights. These three types of air traffic, very different in nature, must all use the airspace together in safety. In the upper airspace, the general air traffic is organized around pre-determined routes (PDR) or airways. Civil flights only ever deviate from these routes after co-ordination with military centres.

OAT (Military Air Traffic) flights, on the other hand, have unforeseeable flight paths (combat) or ones that are difficult to modify. Because of this, airspaces must be temporarily reserved for them where they can fly without interfering with civil air traffic.

Finally, there is one more category of military flights: “out of area” military air traffic. These are flights that can use all the airspace. The military controller in charge of this flight is responsible for maintaining separation with other aircraft, according to information provided by civil aviation systems.

OAT may never interfer with GAT.

ATC needs to seperate OAT and GAT at any times.

CALL SIGNS

Most countries has there own air force, they also have a nation air force call sign. Such call signs are mostly used if aircrafts are flying to another country for a period of time. Such call signs are also used to represent the aircrafts air force.

Such call signs can indicate air force, navy, army or joint guard flights.

AIRFORCE

Netherlands	NAF	Netherlands AF
Belgium	BAF	Belgium AF
Austria	ASF	Austrian AF
Brazil	FAB	Brazilian AF
Germany	GAF	German AF
Denmark	DAF	Danish AF
Norway	NOW	Norwegian
United Kingdom	RFR	Rafair
France	CTM	Cotam (French AF cargo)
France	FAF	French AF
Portugal	AFP	Portuguese AF
Italy	IAM	Italy AF
Slovakia	SQF	Slovak AF
Poland	PLF	Polish/PLF
Spain	AME	Airmil
Canada	CFC	Canforce
Ireland	IRL	Irish Aircorps
Sweden	SVF	Sweedforce
Turkey	TuAF	Turkish AF
Greece	HAF	Hellenic AF
Russia	RFF	Russian AF
South Africa	LMG	South African AF
Brazil	FAB	Brazilian AF
Mexico	FAM	Mexican AF
Ecuador	FAE	Ecuadorian AF
Australia	ASY	Aussy
Thailand	RTAF	Royal Thai AF
Switzerland	SUI	Swiss AF
Egypt	EGY	Egyptian AF
Venezuela	FAV	Aviacion Militar Bolivariana
Morocco	RMAF	Royal Moroccan AF
Romania	ROF	Romanian AF
Czech	CEF	Czech AF
Peru	FAP	Peruvian AF
New Zealand	KIW	Kiwi
Argentina	FAG	Argentine AF
Colombia	FAC	Fuerza Aerea Colombiana
United Emirates	UAF	Uniforce
Saudi Arabia	RSF	Arsaf
Singapore	SAF	Singa

Uruguay	FAU	Fuerza Aerea Uruguaya
Israel	IAF	Israeli AF
India	IFC	Indian AF

NAVY

Brazil	MB	Brazilian Navy
Italy	MNI	Italian Navy
Netherlands	NRN	Netherland (royal) Navy
Germany	GNY	Germany Navy
France	FNY/FMN	French Navy
United Kingdom	NVY	Navy
United States	NVY XX ##	Navy XX is code ## is number
Thailand	RTN	Royal Thai Navy
Colombia	ARC	Armada Colombiana
Venezuela	ARV	Armada Bolivariana de Venezuela
India	INS	India Navy

ARMY

Belgium	BAr/BAF	Belgium Army
Brazil	AVX	Brazilian Army
Italy	I	Italian Army
Denmark	DAr	Danish Army
United Kingdom	ACC	Army (aircorps)
France	FMY	French Army
Thailand	RTA	Royal Thai Army
Venezuela	ENB	Ejercito Nacional Bolivariano

JOINT GUARD

JGA	Belgian AF
JGB	Canadian AF
JGC	Danish AF
JGD	French AF
JGE	German AF
JGF	Greek AF
JGG	Italian AF
JGI	Netherlands AF
JGJ	Norwegian AF
JGK	Portuguese AF
JGL	Spanish AF
JGN	Royal AF
JGO	United States AF
JGP	Turkish AF
JGZ	Various AF

JDF Jamaica Defence Force

1. MISSION STATEMENT (IMPORTANT, MUST READ!)

Similar to Special Operations being an integral part of real world aviation, it is also an integral part of IVAO and its aviation simulation. In order for Special Operations to have its place in the virtual skies of IVAO and due to its nature, the Special Operations Department (SOD) has been established to regulate the use of Special Operations on the IVAO network environment.

The Special Operations Department consists of senior staff, tasked with regulating Special Operations IVAO-wide under the responsibility of IVAO's Executive Council and it consists of divisional staff tasked with regulating Special Operations inside their own division and within the boundaries as defined by the Special Operations Department's senior staff. The Special Operations Department is led by the Special Operations Director and Special Operations Assistant Director. The senior staff team is complemented with a number of Special Operations Advisors who are tasked to assist the Special Operations Director and Assistant Director carrying out their daily duties. Divisional Special Operations are led by the Special Operations Coordinator (SOC) and Special Operations Assistant Coordinator (SOAC), sometimes complemented by a divisional Special Operations Advisor.

Special Operations are defined as all aviation flights and operations that do not fall under the definition of General Air Traffic (GAT) and are thus qualified as Operational Air Traffic (OAT). Special Operations include, but are not limited to: Coast Guard operations, firefighting, search and rescue operations, lifeliners, police operations, all military flights not flying according to GAT procedures, paramilitary activities etc. In layman terms, Special Operation flights are defined as all activities that do not include flying from one destination to another and which are not being performed in accordance with official aviation procedures and rules as defined by ICAO. All traffic which does not comply with ICAO rules and procedures is termed Operational Air Traffic and thus falls under the responsibility of IVAO's Special Operations Department.

As stated, Special Operations is as much an integral part of IVAO's aviation simulation as it is an integral part of real world aviation, with one huge exception. This exception is the golden rule of Special Operations on the IVAO network and must be considered at all times: When simulating real world aviation in the IVAO environment, we shall avoid, under any circumstances, to simulate or to become involved in real world ethnical, political and religious conflicts and problems. It is also forbidden to simulate any act of aggression or (an act of) war. An act of aggression is defined as any aggressive, abusive or hostile behavior towards other people in the IVAO environment that is intentional and/or unwanted and without prior consent of the people directly involved. Simulation of real world Special Operations procedures, such as air-to-air and air-to-ground combat operations, does not necessarily constitute an act of aggression as long as the conditions as defined in the Special Operations Regulations (below) are met. However, targeting of any air-to-air or air-to-ground aircraft or objects is strictly prohibited when not participating in approved category B activities. This rule also applies to people observing Special Operations in the IVAO environment

whom are not directly involved in performing Special Operations. These people shall also avoid, at all times, to interpret the Special Operations procedures in light of, or from a perspective of, any real world ethnical, political and religious conflicts and problems. When observing Special Operations in the IVAO environment, observers shall only reference to the Special Operations Regulations to interpret the actions of each individual performing Special Operations both during Special Operations events or during day to day Special Operations. Any real-world perspectives must not influence an observer's interpretation of Special Operations activities.

It is the Special Operations Department's main goal to facilitate Special Operations being performed in IVAO's aviation environment, as real as it gets. Due to the nature of Special Operations and its possibilities for abuse towards other people, the 'as real as it gets' Special Operations procedures are regulated as defined in these Special Operations Regulations. It is the Special Operations Department's main focus to provide all IVAO members with the best possible experience and freedom when performing Special Operations procedures in an IVAO environment, whilst also limiting possible abuse of this freedom and the limitation of other people's freedom in case they're on the receiving end of any possible abuse due to freedom gained, or in case of any violation of aforementioned 'golden rule'.

Everyone performing Special Operations in IVAO's environment is expected to have knowledge of, and must adhere to, the guidelines established in these Special Operations Regulations. Any violation may result in disciplinary actions being taken against the individual or group violating the Special Operations Regulations. These disciplinary actions can be constrained by members of the Executive Council, IVAO senior staff members or supervisors and range from temporary limitations to permanent exclusion from the IVAO environment.

2. CLASSIFICATION OF SPECIAL OPERATIONS ACTIVITIES

For clarity purposes, all possible Special Operations activities are being classed into different Special Operations categories, ranging from Category A through Category E. When performing Special Operations activities in the IVAO environment, the category will determine which activities are allowed to be performed by individuals, formation flights and Special Operations Groups, as well as determine the rewards when taking part in HQ-SOD approved events of a certain category. The range of categories is defined as follows:

2.1. CATEGORY A (CAT A) ACTIVITIES

The bulk of Special Operations activities in the IVAO environment falls under this category. It is the collective term for all Special Operations activities that do not fall under Categories B through E. The term 'Category A activity' will apply to activities performed by individuals, formation flights, Special Operations Groups (SOGs) and as a categorisation for HQ-SOD approved events.

Category A SO activities apply to, but are not limited to, the following Special Operations activities: firefighting, police, lifeliners, coast guard, search and rescue, medical and casualty evacuation, VIP flights (with possible escort), humanitarian operations, logistical (transport) operations, CIMIC, formation flights, air-to-air refueling, shipborne and aircraft carrier operations, low-level flights, tactical transport, AWACS operations, basic fighter maneuvers (BFM), combat air patrol (CAP), practice intercepts (PIs) etc.

2.2. CATEGORY B (CAT B) ACTIVITIES

Category B SO activities in the IVAO environment are defined by combative operations, both air-to-air (A-A) as well as air-to-ground (A-G). Category B activities consist of Advanced Combat Maneuvers (ACM), task group flights, combat air patrols and practice intercepts that are both meant to turn into ACM, scrambles and simulated targeting of both aircraft and ground objects. Due to the nature of Cat B activities, they are bound to a very specific set of conditions before they're permitted to be performed. These conditions will be explained further below.

2.3. CATEGORY C (CAT C) ACTIVITIES

Category C activities involve all SO activities that are due to be performed in countries/airspace that do not have an active division. Basically, all SO activities in non-active divisions are prohibited unless it is an event that is being organised under very strict regulations. The regulations will be explained in the events section below.

2.4. CATEGORY D (CAT D) ACTIVITIES

SO activities that fall into category D are activities in which aircraft only fly for a relative short amount of time, for the purpose of airshows, races etc. Category D activities relate to aircraft practicing for airshows/races or performing in an airshow/race itself. SO Fly-Ins also fall under Category D activities.

2.5. CATEGORY E (CAT E) ACTIVITIES

The Category E activities were once invented with organised practice events in mind. They're mainly meant for people to organise a get together to practice a specific set of procedures with a group of other people, i.e. air-to-air refueling. Category E activities can also be applied to individuals, formation flights or SOGs in case they are practicing a certain set of SO procedures and have setup a scenario in which they're only practicing one set of procedures repeatedly.

2.6. SUMMARY

In short, the classification of SO activities is as follows: Cat A: all operations not classified under any other category. Cat B: combative operations. Cat C: all SO activities in non-active divisions. Cat D: short flights for the purpose of airshows, races or fly-ins. Cat E: activities to repeatedly practice a certain set of SO procedures.

3. INDIVIDUAL SPECIAL OPERATIONS ACTIVITIES

Individuals performing ‘Special Operations activities’ outside their own division, are not considered to be performing Special Operations activities (OAT) and shall therefore follow GAT procedures in accordance with established ICAO rules and procedures, apart from activities defined below. It is also mandatory for individuals to adhere to the (Special Operations) Letter of Agreement of each division they pass through. The regulations for individuals do not apply to individuals participating in an HQ-SOD approved SO events. The following regulations apply to individual Special Operations activities:

Individuals wanting to perform Special Operations inside the boundaries of their own division are exempted from having to follow GAT rules and procedures (and are thus classified to be performing Special Operations as OAT) for the following activities: category A, D and E activities. There is one mandatory condition for individual Cat A, D and E activities to be allowed inside one’s own division: there has to be a continuous written agreement between the division’s SOC/SOAC/HQ and the individual, stating that the individual is permitted to be performing aforementioned activities inside his own division.

Individuals are not permitted to be performing any Special Operations activities as OAT outside their own division, apart from firefighting, lifeliner, search and rescue, humanitarian, logistical/transport SO activities. Outside their own division, individuals shall follow ICAO rules and procedures as GAT. In case of aforementioned exempted activities in this paragraph, an individual can file oneself as OAT. In case the individual is participating in the Special Operations World Tour and this tour requires the individual to perform SO activities outside the individual’s own division, this shall be permitted under the circumstances mentions in the briefing of the SO World Tour. The same applies to HQ approved SO events: in case an individual participates in an HQ approved SO event, they are permitted to execute all operations mentioned in the briefing of the HQ approved SO event, even if th involves performing Category B activities.

The participation of an individual in a divisional civilian event as OAT (as an individual or as an escort) shall only be permitted in case the individual has obtained prior approval from the organizing division, or in case of multiple organizing divisions, all divisions involved in the organization of the civilian event.

Individuals shall not organise or perform any Category B activities whatsoever.

All individuals wishing to intercept another aircraft (both GAT and OAT) in the IVAO environment, shall adhere to the following rules:

Military aircraft shall be used to perform interceptions.

Interceptions are prohibited unless prior approval is obtained from the aircraft that is to be intercepted and the ATC station the intercept is to be performed on.

Non-RVSM equipped OAT traffic operating in RVSM airspace shall not proceed within 2000ft vertical separation or 5NM longitudinal and lateral separation of any other aircraft unless prior permission from the intercepted pilot and ATC (if applicable) has been obtained. The same

separation minima apply for airspace other than RVSM, unless otherwise prescribed on the basis of regional air navigation agreements and/or by the appropriate ATS authority.

RVSM equipped OAT traffic operating in RVSM airspace shall not proceed within 1000ft vertical separation or 5NM longitudinal and lateral separation of any other aircraft unless prior permission from the intercepted pilot and ATC (if applicable) has been obtained.

ATC stations shall notify the appropriate other ATC stations of the (intention to) intercept in case the aircraft involved are about to transition into another ATC station's airspace.

Aircraft (re)joining their own or other formations are not considered to be performing an intercept and are thus exempted from above mentioned intercept rules.

4. FORMATION SPECIAL OPERATIONS ACTIVITIES

All aircraft wanting to perform SO activities in a formation of 2 or more aircraft shall adhere to the exact same set of rules as individual Special Operations activities mentioned above. (For a definition of a formation flight, see standardization agreement 7001 written by SOD).

5. SPECIAL OPERATIONS ACTIVITIES FOR SPECIAL OPERATIONS GROUPS (A VIRTUAL AIRLINE FOR SO)

The following set of regulations applies to official IVAO registered Special Operations Groups (SOGs) and its members, whenever they are performing SO activities with other members of their SOG. SOGs not registered in the IVAO database as an official IVAO approved SOG are not considered to be a SOG and shall follow the regulations under header "4. Formation Special Operations activities".

SOGs performing 'Special Operations activities' outside their own division, are not considered to be performing Special Operations activities (OAT) and shall therefore follow GAT procedures in accordance with established ICAO rules and procedures, apart from activities defined below. They are permitted to perform formation flights as long as they follow GAT or SO LOA defined procedures. It is mandatory for SOGs to adhere to the (Special Operations) Letter of Agreement of each division they pass through. The regulations for SOG SO activities do not apply to SOGs participating in an HQ-SOD approved SO event. The following regulations apply to SOG Special Operations activities:

SOGs wanting to perform Special Operations inside the boundaries of their own division are exempted from having to follow GAT rules and procedures (and are thus classified to be performing Special Operations as OAT) for the following activities: category A, D and E activities. There is one mandatory condition for individual Cat A, D and E activities to be allowed inside one's own division: there has to be a continuous written agreement between the division's SOC/SOAC/HQ and the SOG that the SOG is permitted to be performing aforementioned activities inside its own division.

SOGs are not permitted to be performing any Special Operations activities as OAT outside their own division, apart from firefighting, lifeliner, search and rescue, humanitarian, logistical/transport

SO activities. Outside their own division, SOGs shall follow ICAO rules and procedures as GAT. In case of aforementioned exempted activities in 5.2, a SOG can file themselves as OAT.

The participation of a SOG in a divisional civilian event as OAT (as individuals or as an escort) shall only be permitted in case the SOG has obtained prior approval from the organizing division, or in case of multiple organizing divisions, all divisions involved in the organization of the civilian event.

SOGs are permitted to organise HQ-SOD approved Cat B events twice a year. However, the organisation of such Cat B events is subject to all conditions mentioned in the events section for Cat B events below. In addition, a Cat B event can only be organised and approved by HQ-SOD in case the SOG has received permission from their division's SOC/SOAC and only if their request for the Cat B event is submitted through their division's SOC/SOAC.

A SOG is permitted to organise Cat B activities for and within their own SOG once every 3 months in case the following conditions are met:

It is mandatory for all pilots taking part in a SOG's Cat B activities to be a member of aforementioned SOG. No non-SOG members allowed for Cat B activities performed by a SOG.

The SOG shall obtain prior written consent from both their division's SOC/SOAC/HQ ánd HQ-SOD each time the SOG is planning to perform internal SOG Cat B activities.

The SOG's Cat B activities shall be performed in a separate stretch of airspace, away from any other aircraft and the closing of this airspace for the SOG's Cat B activities must be announced in the division's NOTAM system.

All other conditions mentioned in the events section under Category B events of this document shall apply. This includes, but is not limited to, the division having an SO LOA available, the division having appointed separate stretch(es) of airspace for Cat B activities to take place in their SO LOA, any air targets can only be other aircraft from the SOG and ground targets are limited to non-civilian and unpopulated targets etc (see the events section, Cat B events below).

The SOG's Cat B activities shall only be performed inside the boundaries of their division.

6. REGISTERING A SPECIAL OPERATIONS GROUP

The Special Operations Department of IVAO is pleased to offer all active virtual Squadrons, Air Forces or Special Operations Units the opportunity to register as IVAO-CERTIFIED Special Operations Groups. (SOGs). SOGs are similar to civilian Virtual Airlines, yet they focus on performing Special Operations activities rather than civilian ones. Registering a SOG will grant access to the IVAO-SOG system, which is a unique facility designed to assist senior officers of those groups to administer the activities of their own SOG on the IVAO network. Additional benefits include weather and online tracking displays on the group's website and of course there is a considerable prestige of having your group registered as an approved IVAO-SOG. Furthermore, registering one's SOG as an IVAO certified SOG will place the SOG's activities under section 5 of this document rather than section 4, granting them additional possibilities and opportunities in the IVAO environment.

In order for a SOG to be registered as an IVAO certified SOG, follow the link to the registration page and send an email to specops@ivao.aero to confirm the wish to be an IVAO certified SOG. To be considered as an IVAO certified SOG, the following criteria have to be met:

The SOG shall be a freeware, non-commercial, non-profit organisation.

No commercial advertising is allowed.

Be active in IVAO.

Be operational. If not operational, the request will be voided.

Have at least 10 active members of IVAO.

Have a fully functional website which must not be under construction. The website must contain a staff and pilot roster accessible to at least HQ-SOD staff to match the roster with the IVAO database, a SOG rules and regulations page and it is mandatory for the pilot/staff roster page, SOG rules and regulations page and the homepage to have an English translation.

HQ-SOD is ultimately responsible for maintenance of the SOG database, the registrations and removals of IVAO certified SOGs, and HQ-SOD deserves the right to add or remove any SOG at all times in case they deem this to be necessary.

A SOG must receive prior written consent from their division's director and assistant director for their SOG to be established in the division involved. In case their country doesn't have an active division, the request for prior consent is sent to HQ-SOD.

The activities of IVAO certified SOGs in non-active divisions are limited to category C activities, as per previously mentioned SOG rules (section 5).

A division's director and/or assistant director can request HQ-SOD to remove an IVAO certified SOG from the database at any time, though the final decision whether to remove the SOG from its IVAO certification lies with HQ-SOD.

The SOG's CEO must:

Be at least 18 years old at the time of the registration.

Have an active IVAO account for at least 6 months.

Not have a suspension record in the last 3 months.

Have at least ADC or PP rating.

Be active on the IVAO network and have an active account at all times.

Be the CEO of a maximum of 1 SOG or VA.

A SOG shall submit a 3 letter ICAO code for the SOG to be registered under. In case the SOG is based on a real life Special Operations group, the ICAO code of the real-world variant shall be used. Only one SOG can register with a particular ICAO code. There cannot be 2 SOGs with the same ICAO code. Only members of this SOG reserve the right to use this ICAO code in the IVAO environment.

7. SPECIAL OPERATIONS WORLD TOURS

Both the Special Operations Department and the World Tour department are mutually responsible for creating the SOWT on an annual basis. The release date of the SOWT will be determined by both departments in close coordination with each other. Once the SOWT has been released, the World Tour Department is responsible for managing and maintaining the SOWT.

8. DIVISIONAL SPECIAL OPERATIONS TOURS

A division's SOC/SOAC are responsible to organise and create divisional SO tours. The frequency and release dates of divisional SO tours shall be determined by the SOC/SOAC and is not bound to any regulations. Divisional SO tours shall be limited to Category A, D and E activities inside the division itself. In case the SOC/SOAC would like to involve other divisions in their divisional SO tour as well, this shall be bound to the following criteria:

The SOC/SOAC shall request prior written consent from all other divisions involved in the planned divisional SO tour.

Any legs from the divisional SO tour to be performed in other divisions shall be limited to transit flights under GAT ICAO rules and procedures.

In case the SOC/SOAC wants to perform Category A, D or E activities in other divisions as part of their divisional SO tour, the SOC/SOAC shall obtain prior written consent for these Category A,D or E activities from all other divisions involved.

9. SPECIAL OPERATIONS EVENTS

Each week, many Special Operations events are being organised IVAO-wide. We can separate SO events into two different types of event: divisional SO events and HQ-SOD approved SO events. Both types can be classified according to the classification explained in section 2 of this document, ranging from Category A through E events. In general, HQ-SOD approved IVAO events offer the organising party and its participants a greater number of perks, greater possibilities, a bigger number of participants and with all advantages to HQ-SOD approved events considered, usually a higher level of fun than divisional SO events. The following criteria shall apply to all SO events organised in the IVAO environment:

All organised SO events shall be categorized according to the classification explained in section 2 of this document.

Individuals, groups, SOGs, divisional SO staff and HQ-SOD staff can all organise an SO event, though the classification of the event determines who can organise which category event (this will be explained below).

Multiple combinations of individuals, groups, divisional SO staff or HQ-SOD are permitted to organise an SO event together in close coordination with each other.

SO events shall only be organised in active divisions, unless all requirements for Category C events have been met (as detailed below).

At no time shall it be permitted for aircraft participating in any SO event to interfere with GAT aircraft, unless the interference with GAT aircraft is the actual point of the SO event. In case of the latter, the interference shall be limited to GAT aircraft whose pilot signed up to participate in the SO event and whose participation has been approved by the organising party.

Divisional SO events are limited to Category A, D or E events. Participants of divisional SO events might be eligible for divisional awards in case a division has established such reward, but participants will not be eligible for any SO points towards the IVAO Jet Fighter or IVAO SO controller awards. In case divisional events are being announced in the IVAO forum sections, the organising party shall clearly state that the event has not been approved by HQ-SOD, thus the participants are not being awarded with any SO points.

All participants of HQ-SOD approved SO events are eligible for SO points towards their IVAO Jet Fighter award or IVAO SO Controller award. SO points for HQ-SOD approved SO events are being awarded as follows:

Category A events will be awarded with two (2) SO points for every participant. If the Cat A event takes place on multiple days, two (2) SO points will be issued to each participant for each day they participated.

Category B events will be awarded with three (3) SO points for every participant. If the Cat B event takes place on multiple days, three (3) SO points will be issued to each participant for each day they participated.

Category C events will be awarded with two (2) SO points for every participant. If the Cat C event takes place on multiple days, two (2) SO points will be issued to each participant for each day they participated.

Category D events will be awarded with one (1) SO point for every participant. If the Cat D event takes place on multiple days, one (1) SO point will be issued to each participant for each day they participated.

Category E events will be awarded with one (1) SO points for every participant. If the Cat E event takes place on multiple days, one (1) SO points will be issued to each participant for each day they participated. An extra one (1) SO point will be issued to participants who participated in all organised Cat E training sessions (minimum of three (3) sessions).

9.1 THE FOLLOWING CRITERIA SHALL BE ABIDED TO WHEN ORGANISING ANY CATEGORY HQ-SOD APPROVED SO EVENT:

Organising parties of HQ-SOD approved SO event shall submit a request for such an event for HQ-SOD’s approval.

The organising party shall submit the request to organise an HQ-SOD approved SO event to specops@ivao.aero no later than 15 days prior to the planned date of the event. Requests received later than 15 days prior to the event date shall be rejected by HQ-SOD, though exceptions can be made at HQ-SOD’s discretion.

In case the organising party of an HQ-SOD approved SO event is not divisional SO staff, the organising party is to obtain approval form the division’s SOC/SOAC. No matter the organising party of such events, all requests shall always be submitted to HQ-SOD by the division’s

SOC/SOAC. HQ-SOD assumes that the SOC/SOAC has coordinated the event with fellow divisional staff members once HQ-SOD receives a request.

The maximum number of HQ-SOD approved SO events is limited to one (1) event on any given day. A planning of all HQ-SOD approved SO events can be found on the IVAO forum or IVAO webpage.

It is mandatory for the HQ-SOD approved SO even requests to be submitted with a detailed briefing in English attached.

HQ-SOD handles all received requests for SO events on a first come, first serve basis. It is possible to announce the date for a planned SO event to the community prior to the request being sent to HQ-SOD, however HQ-SOD does not consider this to be an official request until they have received such request via email with the English briefing attached.

It is mandatory for at least one ATC station to be active during the HQ-SOD approved SO events. OAT shall be handled by military ATC stations as much as possible, divisional and AIP arrangements permitting. It is advisable to arrange for civilian ATC to be online to handle GAT and to help GAT stay clear of OAT. Military ATC stations shall use their ICAO code as identifier. However, the military ATC station's callsign is allowed to be changed if approved by HQ-SOD.

An HQ-SOD approved SO event shall be open to all members from any division in order for the event to be approved.

HQ-SOD reserves the right to reject any requests for organising an HQ-SOD approved SO event. Though SOD will try to accommodate everyone as much as possible, there might be any number of reasons for HQ-SOD to reject a request, i.e. the event doesn't meet the criteria explained in the regulations, a change in real world circumstances which suddenly changes the event into a war/conflict simulation etc.

Once approved, the organising party shall announce the event in the Special Operations section of IVAO's HQ forum no later than 3 days prior to the event. Participants will not be eligible for any SO points in case this criterion has not been met, though exceptions may be possible at discretion of HQ-SOD.

The organising party shall maintain a list of all participants of the HQ-SOD approved SO event, both pilots and ATC. This list is vital for all participants to be awarded with any SO points towards their IVAO Jet Fighter and SO controller awards. The organising party shall send this list to specops@ivao.aero no later than 5 days after the event, using the template available on the IVAO webpage. Due to the importance of this list, failure to meet this criteria may result in disciplinary actions being taken against the organising party, ranging from exclusion of the division from organising any future SO events to temporary or even permanent exclusion from the IVAO environment.

HQ-SOD approved SO events should take place in separate training areas in a division's FIR as much as possible. Organising parties shall make an effort to avoid interference with any other aircraft not participating in the event as much as possible.

It is the organising party's responsibility to make sure all instructions for the event are being followed properly and to make sure all rules and regulations are being followed. In case the organising party notices any violations, they shall contact a supervisor to take appropriate action.

They shall also send an email to specops@ivao.aero to notify HQ-SOD of these violations and include a summary of what happened, proof gathered (i.e. screenshots taken) and the details of the user violating the rules and/or regulations.

9.2 CATEGORY A SPECIAL OPERATIONS EVENTS

Category A SO events are defined as events in which category A activities, as detailed in section 2 of this document, take place. The following criteria shall apply to Cat A SO events:

Cat A events can be organised by individuals, groups, SOGs, divisional SO staff and HQ-SOD staff. Requests for Cat A events organised by individuals, groups or SOGs shall be submitted to HQ-SOD through the division's SOC/SOAC.

9.3 CATEGORY B SPECIAL OPERATIONS EVENTS

Category B SO events are defined as events in which category B activities, as detailed in section 2 of this document, take place. The following criteria shall apply to Cat B SO events:

Cat B events can be organised by SOGs, divisional SO staff and HQ-SOD staff. Requests for Cat B events organised by SOGs shall be submitted to HQ-SOD through the division's SOC/SOAC. SOGs and SOC/SOACs are limited to only organise a maximum of 2 HQ-SOD approved Cat B SO events per year.

Cat B events shall only take place in active divisions.

A minimum of one (military) ATC station is mandatory.

A detailed briefing in English shall be included in the event request. The briefing shall also contain detailed maps of the area of operations.

In case a Cat B event is being requested by an SOC/SOAC, it should have been included in the Division's Activity Reporting Plan (DARP). If not, the request will be rejected. Exceptions to this criterion are possible at the discretion of HQ-SOD.

The division shall have established an SO LOA and shall publish this SO LOA on its webpage. The SO LOA shall also contain (temporary) segregated/restricted airspace specifically assigned for Cat B operations to take place. The lack of a published SO LOA or assigned Cat B areas will result in the request being rejected.

Cat B events shall take place in (temporary) segregated/restricted areas and it is strictly prohibited for participants to interfere with any other traffic not participating in the event.

A-A targeting or A-G targeting shall only be approved during Cat B events/activities. When targeting A-A objectives, the targets shall be limited to all aircraft whose pilot specifically signed up to participate in the Cat B event. At no point shall any civilian passenger aircraft be targeted during Cat B A-A combative activities.

Targets for any A-G operation shall never be any structure of a civilian nature that could house people in it, such as buildings, factories, vehicles etc. Targeting of A-G objects shall be limited to unpopulated military targets or objects that cannot house any people, such as bridges, containers etc. Participants targeting any other aircraft or ground objects than those that are part of the Cat B

event, will eventually result in the individual/group being temporarily or permanently excluded from the IVAO environment due to a violation of the ‘golden rule’ mentioned in the mission statement.

Once HQ-SOD approves the request for a Cat B SO event, a liaison will be appointed by HQ-SOD to observe the event and to make sure that all the event requirements and rules and/or regulations are being followed. This liaison is not to participate in the event itself as a pilot, the liaison shall only observe the event.

In case of any Cat B events being performed, it is ultimately the SOC/SOAC’s responsibility to make sure all instructions for the event are being followed properly and to make sure all rules and regulations are being followed. In case the SOC/SOAC notices any violations, they shall contact a supervisor to take appropriate action. They shall also send an email to specops@ivao.aero to notify HQ-SOD of these violations and include a summary of what happened, proof gathered (i.e. screenshots taken) and the details of the user violating the rules and regulations.

9.4 CATEGORY C SPECIAL OPERATIONS EVENTS

Category C SO events are defined as events in which category C activities, as detailed in section 2 of this document, take place. The following criteria shall apply to Cat C SO events:

Cat C SO events can be organised by HQ-SOD or by a joint effort from SOC/SOACs from a minimum of two active divisions.

Category C events are limited to firefighting, lifeliner, search and rescue, humanitarian, logistical/transport activities.

Fighter jets shall not be included in any Cat C SO event, unless the fighter jets are being used as an escort of other aircraft and only when prior written consent has been obtained from HQ-SOD.

9.5 CATEGORY D SPECIAL OPERATIONS EVENTS

Category D SO events are defined as events in which category D activities, as detailed in section 2 of this document, take place. The following criteria shall apply to Cat D SO events:

Cat D events can be organised by individuals, groups, SOGs, divisional SO staff and HQ-SOD staff. Requests for Cat D events organised by individuals, groups or SOGs shall be submitted to HQ-SOD through the division’s SOC/SOAC.

9.6 CATEGORY E SPECIAL OPERATIONS EVENTS

Category E SO events are defined as events in which category E activities, as detailed in section 2 of this document, take place. The following criteria shall apply to Cat E SO events:

Cat E events can be organised by individuals, groups, SOGs, divisional SO staff and HQ-SOD staff.

No formal request is required to be sent to HQ-SOD. The only limitation is that the Cat E event shall not take place during the timeframe of any other HQ-SOD approved SO events.

The organising party shall publish the Cat E event in the Special Operations section of IVAO's HQ forum a maximum of 1 day prior to the event, to alert all members of the Cat E event being perfomed. An HQ-SOD staff member will double check the forum post to make sure all requirements are being met.

A Cat E So event shall consist of a minimum of three (3) sessions. Each session shall be a minimum of three (3) days and a maximum of three (3) weeks apart. Participants will be awarded with one (1) SO point for each session they have participated in. One (1) extra SO point will be awarded if a participant attended all organised sessions.

As with any other event, the organising party shall also maintain a list of all participants per session and forward this list to HQ-SOD, using the template provided by HQ-SOD. However, this list shall only be forwarded to HQ-SOD once all sessions have been completed, not after each session.

For a guide on how to actually create an event once you have made yourself acquainted with above mentioned rules, please visit the following page: Create an S.O. Event

10. AWACS

The use of AWACS aircraft as ATC stations shall only be permitted during HQ-SOD approved SO events and only after approval for the involvement of the AWACS station is being given by HQ-SOD.

When online, the AWACS ATC station shall only control OAT participating in the SO event. By no means should an AWACS ATC station control any GAT.

In case the AWACS is controlling OAT in a stretch of airspace dedicated to the SO event, but also being controlled by another stationary ATC station at the same time, the AWACS station shall coordinate this with the other involved ATC station.

Participants flying the AWACS station during an SO event shall be permitted to use a double connection to both pilot the aircraft and control as an ATC station under the following mandatory conditions:

A separate email shall be submitted to specops@ivao.aero by the organising party, requesting a double connection for the AWACS participant.

The participant flying the AWACS aircraft shall not pilot the aircraft and control other aircraft at the same time. The participant shall first fly the AWACS to its orbit, engage the autopilot for the aircraft to continue its orbit indefinitely and only then shall the participant login as an ATC station and start controlling other aircraft. No double connections allowed until the AWACS has established the orbit on the autopilot.

The participant shall stop controlling other aircraft and log out of the ATC station prior to disengaging the autopilot and leaving its orbit. No double connections after leaving the orbit.

AWACS aircraft shall use the callsign "MAGIC" when both piloting and controlling at all times.

AWACS participants shall use the ICAO code of the division involved, followed by the suffix "M" and "CTR" when logging in as an ATC station in Ivac, i.e. EHAA_M_CTR.

11. DIVISION SPECIAL OPERATIONS (ASSISTANT) COORDINATORS

A division’s Special Operations Coordinator (SOC) and Special Operations Assistant Coordinator (SOAC) are being appointed by the division’s Director and/or Assistant Director. The appointment of an SOC/SOAC is, in principle, a divisional affair. A SOC and SOAC have a number of responsibilities towards their own division. These divisional responsibilities are defined and established at the discretion of the division’s Director and/or Assistant Director. However, SOC/SOACs are also considered to be a vital part of the Special Operations Department as a whole. As such, they also have a number of responsibilities towards HQ-SOD and the SO community as a whole. The responsibilities of SOC/SOACs towards HQ-SOD and the SO community shall be defined as follows:

Each division’s SOC or SOAC shall submit a Division Activity Reporting Plan (DARP) to HQ-SOD on an annual basis. This DARP shall be submitted to HQ-SOD at the start of each new year, no later than January 31st of each new year. Each DARP shall be drafted according to the template provided by HQ-SOD and it shall contain a minimum of the following items:

Details of the SOC, SOAC and the division.

An overview of HQ-SOD approved SO events and divisional SO events organised in the previous year.

An overview of the HQ-SOD approved SO events and divisional SO events planned for the new year.

A report with an overview and review of all activities of the SOC and SOAC during the previous year.

A report with an overview and goals for the SOC and SOAC’s activities for the new year.

Each SOC and/or SOAC shall establish permanent or temporary training areas for Special Operations to take place in close coordination with other divisional staff members responsible for the division’s airspace.

Training areas can be defined as all danger areas, restricted airspace, prohibited airspace, cross border areas, temporary restricted airspace and temporary segregated airspace that are being dedicated to perform Special Operations activities and/or events.

It is advised that the type of training area and its lateral and vertical boundaries are being based on the real world (military) AIP. It is at the discretion of the SOC/SOAC how much, if any, of these areas are based on the real world (military) AIP.

HQ-SOD recognizes (military) AIP information might not always be available to each division or when available, might be severely outdated. In such cases, SOC/SOACs shall establish and define their own training areas.

Once permanent or temporary training areas have been established, SOC/SOACs shall also define which training areas shall be used for Category B SO activities and/or events.

In case temporary training areas are being established and reserved for SO activities/events, or in case permanent training areas are being closed to GAT for the purpose of SO activities and/or events, the SOC/SOAC shall ensure this to be announced in the NOTAM section of its division.

In case any Category B SO activities or events are planned to take place in established training areas, these areas shall always be closed to any other traffic than the traffic participating in the Category B activities and/or events for the entire duration of the Category B activities/events. This shall also be announced in the division's NOTAM system.

Each SOC/SOAC shall ensure that established permanent and temporary training areas are being added to the division's Ivac sector file(s).

Each SOC/SOAC shall establish a Special Operations Letter of Agreement for their own division.

This SO LOA, once established, shall be reviewed and updated (if applicable) on an annual basis.

The SOC/SOAC shall ensure that the established SO LOA is being published on their divisional web page. In case the division's SO LOA has been updated, the divisional web page shall also be updated to reflect those changes.

It is advisable that the SO LOA is based on the real world (military) AIP. It is at the discretion of the SOC/SOAC how much, if any, of the SO LOA is based on the real world (military) AIP. HQ-SOD recognizes (military) AIP information might not always be available to each division or when available, might be severely outdated. In such cases, SOC/SOACs shall establish and define their own SO LOA.

The SO LOA to be established by the SOC/SOAC shall contain information on a minimum of the following subjects:

Information on general rules and procedures for OAT, such as OAT routes, assigned altitudes (blocks) etc.

Information on airspace structure and airspace classification.

Information on established training areas, which includes, but is not limited to, the type of training area, its lateral limits and its vertical limits.

Information on which training areas have been appointed specifically for Category B activities and/or events.

Speed and supersonic restrictions.

Information on military/Special Operations ATC stations and the airspace these ATC stations are responsible for under which conditions.

Each SOC/SOAC shall maintain a list of all individuals who have received the continued approval from the SOC/SOAC to perform Category A, D and E activities inside their own division at the individual's discretion.

Each SOC/SOAC shall monitor and ensure that all SOGs based in their division shall only perform Category B activities once every 3 months. SOC/SOACs shall also ensure that the SOG has received prior divisional and HQ-SOD written consent to approve of the SOG's planned Category B activities.

SOC/SOACs shall always announce the divisional and HQ-SOD approved SO events in both their divisional and HQ Special Operations forums once the approval from HQ-SOD has been obtained (if applicable). In case of divisional SO events, SOC/SOACs shall clearly state the SO event has not

officially been approved by HQ-SOD and point out to possible participants that they shall not receive any SO points for their IVAO Jet Fighter or SO Controller award.

HQ-SOD assumes that prior to a request for an SO event is being submitted to HQ-SOD, the SOC/SOACs have ensured that all applicable fellow divisional staff members are aware and have approved the planning and proposition of the proposed SO event.

Each division's SOC/SOAC shall organise a minimum of one (1) HQ-SOD approved Category A, B or C SO event per year, or a minimum of two (2) HQ-SOD approved Category D events.

HQ-SOD recognizes that the appointment and/or removal of any SOC or SOAC is generally considered to be a divisional affair. It is HQ-SOD's policy to not interfere with these divisional affairs as much as possible. HQ-SOD recognizes that it should mostly be up to the division's headquarters to decide whether they think a SOC or SOAC is performing his/her duties properly and to decide whether a SOC or SOAC should be removed from the position or not. However, all SOCs, SOACs and divisional headquarters should also recognize that their division's SOC and SOAC not only have responsibilities towards their own division. Above mentioned SOC and SOAC responsibilities towards HQ-SOD and the SO community as a whole are also mandatory to be performed by the SOC and/or SOAC.

In case a SOC and/or SOAC does not perform his/her responsibilities towards HQ-SOD and the SO community as defined above, HQ-SOD will first contact the SOC/SOAC and divisional headquarters to alert them of this fact and to try to find a solution for the SOC and/or SOAC to be able to fulfill above mentioned responsibilities. However, in cases where a SOC and/or SOAC continues to ignore their responsibilities towards HQ-SOD and the SO community and has shown no or too little improvement in fulfilling above mentioned responsibilities, HQ-SOD reserves the right to request IVAO's Executive Council to remove the involved SOC and/or SOAC from their position.

Obviously, HQ-SOD recognizes that any duties and responsibilities being performed by IVAO staff members are being performed on a voluntary basis and in the staff member's free time. HQ-SOD recognizes that it is always possible for (real world) circumstances to interfere or conflict with one's IVAO duties and responsibilities and HQ-SOD will take this into consideration. However, HQ-SOD does expect SOC/SOACs to proactively inform HQ-SOD in cases where they cannot perform above mentioned duties and responsibilities due to interfering or conflicting (real world) circumstances. SOC/SOACs can expect HQ-SOD, in turn, to offer understanding for such circumstances and HQ-SOD will try to help find a solution as much and as best as possible, should this be necessary.

12. GLOSSARY OF TERMS:

A-A	Air-toAir
A-G	Air-to-Ground
ACM	Advanced Combat Maneuvers
AIP	Aeronautical Information Publication

ATC	Air Traffic Control
AWACS	Airborne Warning and Control System
BFM	Basic Fighter Maneuvers
CAP	Combat Air Patrol
DARP	Division Activity Reporting Plan
GAT	General Air Traffic
HQ-SOD	Special Operations Department's senior staff (director, assistant director, advisors)
ICAO	International Civil Aviation Organization
LOA	Letter of Agreement
OAT	Operational Air Traffic
PI	Practice Intercept
SO	Special Operations
SOC	Special Operations Coordinator
SOAC	Special Operations Assistant Coordinator
SOD	Special Operations Department
SOD	Special Operations Director
SOAD	Special Operations Assistant Director
SOWT	Special Operations World Tour
TRA	Temporary Restricted Airspace
TSA	Temporary Segregated Airspace

The terms 'inside/outside division' are extensively being used in these regulations. These terms can be defined as the following: "Inside/outside sovereign airspace ('territory' as per Chicago convention and water definitions as per UN Law of the Sea) of the individual's or SOG's division state or multistate division, including airspace over open sea, for which civil FIR/UIR of the state(s) has been established.

13. QUESTIONS AND INFORMATION

For any questions relating to the Special Operations Regulations or any questions about Special Operations in general, please contact the IVAO Special Operations Department on specops@ivao.aero.

S.O. GROUP LOGOS

Select one of the following logos and link it to the IVAO Special Operations Department.

SPECIAL OPERATIONS DEPARTMENT

This section of the documentation library is provided and maintained by the Special Operations department.

Question or comments regarding this section should be emailed to sod@ivao.aero

INTRODUCTION

- Directive

PROCEDURES

- Procedural Guides
- Create an Event

GROUPS

- Register a Group
- Group Logos

LETTERS OF AGREEMENT

Here we publish the divisional LOAs, the local SO rules and regulations.

- Argentina
- Austria
- Australia
- Belux region (Belgium, Luxembourg)
- Brazil
- Chile
- Colombia
- Czech Republic
- Dominican Republic
- France
- Germany
- Greece
- Gulf region (Bahrain, Oman, Qatar, United Arab Emirates)
- India
- Indonesia
- Iran
- Israel
- Italy
- Malta
- Middle East region (Iraq, Jordan, Lebanon, Syria)
- Morocco
- Netherlands
- Nordic region (Denmark, Finland, Iceland, Norway, Sweden)

- North America Region (Canada, United States)
- Portugal
- Romania
- Russia
- Saudi Arabia
- Spain
- Sudan
- Switzerland
- Turkey
- United Kingdom and Ireland
- Venezuela