

# 2-Basic Air Picture

**Diese Seite befindet sich derzeit im Aufbau. Einige der angebotenen Inhalte können unvollständig sein oder Fehler enthalten.**

## Introduction

When describing the air picture, always try to think what a pilot could do with the information: remember what kind of data is available in the cockpit, be aware of the performance of weapons system and aircraft capabilities. After completion of this module, you will be able to:

- Describe the elements for a good Situational Awareness.
- Use the correct procedure to pass information.
- Build a picture in your mind.
- Practice the procedures.

## Elements to build a picture

The following elements constitute the “Situational Awareness”, which is fundamental knowledge required to perform the allocated mission.

- **Environment:** The knowledge of the environment and the associated reference points is mandatory. Read the current ACO (Airspace Coordination Orders) in order to be aware of the necessary data.  
Mainly, a fighter controller must know the friendly area of operations, the airspace organisation and the order of battle of the enemy area.
- **ATO:** Controller must know perfectly the ATO (Air Tasking Orders) composition for his period of duty, especially the times “ON and OFF STATION”, working altitudes and associated airspace (ROZ, Track...) of:
  - His own assets,
  - The associated tankers, including ARCT (Air Refuelling Control Times),
  - The support aircraft tasked for the same period.
- **Order of Battle:** Order of Battle (ORBAT) is a document grouping the location of different components of forces such as airfields with associated assets and weapons, and SAM site locations with their performance and engagement ranges. ORBAT applies for both Friendly

and Hostile forces.

The knowledge of ORBAT is mandatory to be aware of the actual and possible threats wherever aircraft may operate.

- **Friendly picture:** Because you know the friendly activity in the area, you are able to positively identify it. Use codewords to describe the friendly picture, and never compromise confidential information, especially if you are using clear frequencies.
- **Hostile picture:** Describe clearly what you see. Locate hostile aircraft, keeping in mind priorities. If the enemy seems change tactics, only state the moves. Then explain the new flight elements and formations.
- **Flight formations:** You must be able to use the correct codewords associated with a specific situation.
- **Maneuvers:** Prior to, and during the engagement, you must be able to:
  - Understand the tactics to be used by your CAP Mission Commander.
  - Monitor the friendly air situation.
  - Transmit the enemy maneuvers in an understandable and concise RT procedure.

## RT Communications

### Communication formats

RT calls must be kept to an absolute minimum. Remember that one Fighter Controller may have several fighters or groups of fighters on the same frequency, and so cannot and must not attempt any close or positive control.

### Alfa Check

Before any transmission, the pilot and the controller must check the position of the reference point (Bull's eye) to ensure that they will be both using the SAME origin for the picture. This is called the "Alfa Check Procedure" and consists in passing the heading and range **FROM** the fighter position **TO** the bull's eye. It can be initiated by any of them.

Pilot	LION 41, SUNRISE, Alfa check Dolphin?
ATC	SUNRISE, LION 41, Alfa check 255/45

If the position is confirmed by the other correspondent, then he must acknowledge by saying “**Same**”.

If the position is different, then a new Alfa Check must be requested after each party has checked its equipment and documentation.

As the end, if there is still a discrepancy, the pilot will define the right position to use with a LAST alfa check.

## Callsigns

These must be used for each communication to avoid any misunderstanding on the call origin.

If the call is descriptive and for the attention of all participants, the controller will start by his own callsign. (e.g. “ SUNRISE, Bandit bullseye 350/15, high, hot”).

If the call is directive for one pair, or one aircraft, the controller will begin with the callsign of the concerned pair/aircraft. (e.g. “NATO 52, SUNRISE, Group 350/ 45...”).

## Passing Information

Use CODEWORDS wherever appropriate. Never use sentences! Never use Errr, Ummm, etc!

Follow the basics as followed:

- **POSITION** of contact using the BRAA format from the stated reference point (bullseye) (NEVER from a fighter)

<b>B</b>	Bearing in 3 digits from known Bullseye point	<b>Three four zero</b>
<b>R</b>	Range from Bullseye in clear or as digits	<b>Seventyfive/Seven five</b>
<b>A</b>	Altitude (*) If the altitude is certain, pass it in thousand feet	<b>24thousand</b>
<b>A</b>	Aspect fighters If approaching If tangential to fighters If going away from fighters	<b>HOT BEAM COLD</b>

- **IDENT of contact**

If unknown

If hostile (\*) aircraft beyond the

If hostile (\*) inside Friendly airspace

If friendly

(\*) depending on ROEs

**BOGEY**

**FLOT BANDIT**

**HOSTILE**

**FRIENDLY**

- **NUMBER of contacts**

If able to discriminate, say the exact number.

If only one

**SINGLE**

If 3 or more, and unable to discriminate

**HEAVY**

- **(\*) Altitude transmission**

- If the altitude is unknown say

**Altitude unknown**

- If the altitude is known and certain

**24thousand**

- If it is a group split in height, use the following blocks (NATO Format):

If above 50,000 ft

**VERY HIGH**

If above 25,000 ft

**HIGH**

If between 5 – 25,000 ft

**MEDIUM**

If between 500 to 5,000 ft

**LOW**

If below 500 ft

**VERY LOW**

- Some other format may be used but they must specified during the mission planning and not decided at the last moment (SPINS):

Example:

00000 to 9999ft

**BLOCK 0**

10000 to 19999ft

**BLOCK 1**

20000 to 29999ft

**BLOCK 2**

30000 to 39999ft

**BLOCK 3**

40000 to 49999ft

**BLOCK 4**

## Communication rules

The success of a mission is depending on the capability of the controller to understand what is happening.

Listen to the frequency and **talk only if needed!**

If no additional information can be added, do not talk.

**Do not repeat every message received.**

## Communication flow during a mission

Priorities must be defined to allow each participant to pass messages during interceptions and engagements in accordance with events.

For example, beyond his radar detection, the pilot is interested in receiving the picture.

As soon as he gains radar contact with hostile aircraft, then the controller should let the pilot lead the radio flow.

That is the reason why the rule of “**Primary Talker**” and “**Secondary Talker**” is applied.

The following table shows who should be the primary talker according to the engagement phase:

