

# Air Route Surveillance Radar (ARSR)

## ARSR (Air Route Surveillance Radar)

## ORSR (Oceanic Route Surveillance Radar)

ARSR or ORSR collects not only the aircraft position detected by the radio wave, but also the altitude or beacon code by sending and receiving signals.

This acquired information is relayed from radar facility to Air traffic Control Center (ACC) by dedicated communication network. By using this information air traffic controllers operate air traffic control service operation such as guiding aircraft and setting separations between aircraft. Both ARSR and ORSR cover the airspace within the radius of 250NM, namely about 460km.



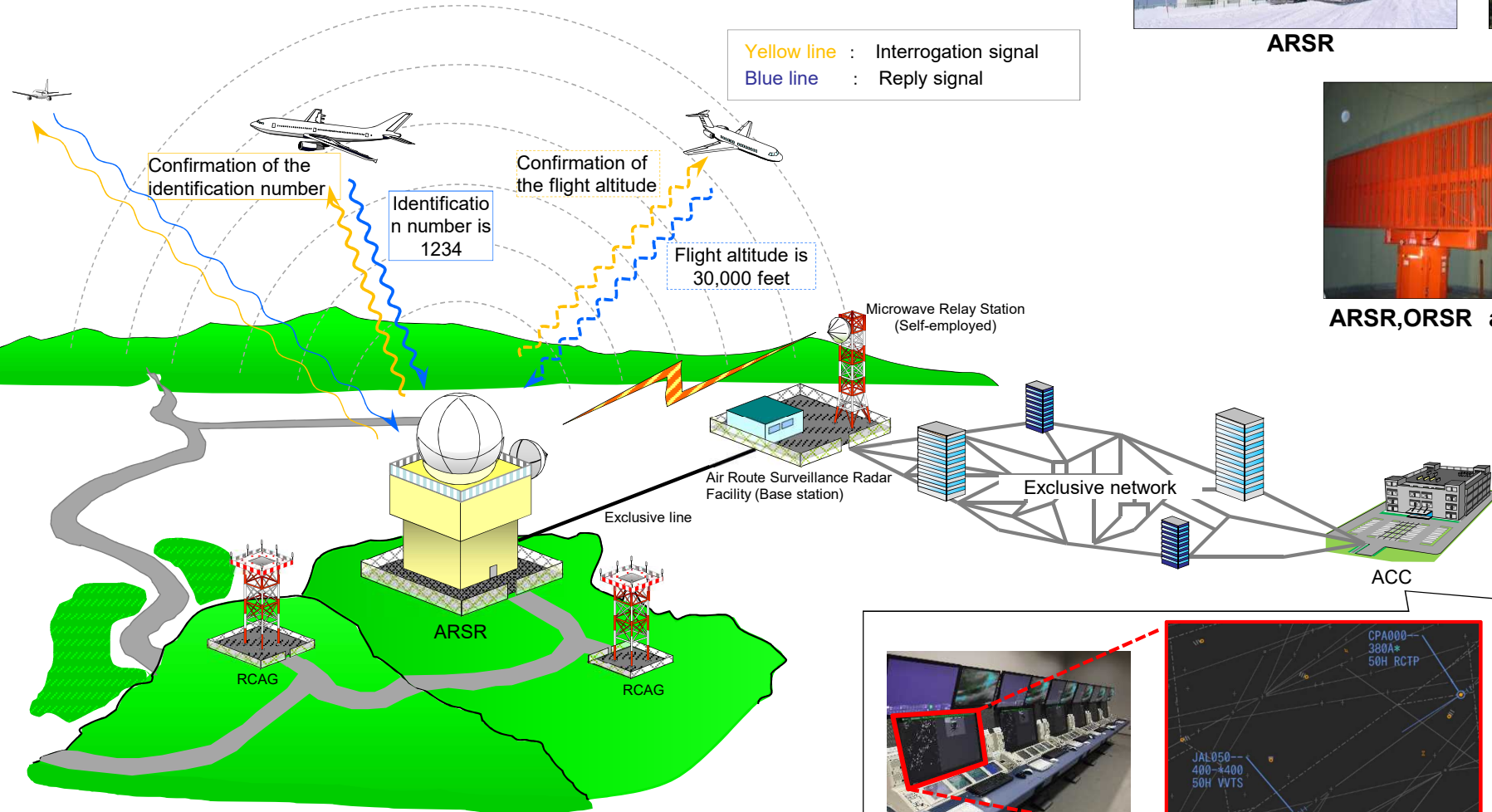
ARSR



ORSR



ARSR, ORSR antenna



Yellow line : Interrogation signal  
Blue line : Reply signal

Confirmation of the identification number

Identification number is 1234

Confirmation of the flight altitude

Flight altitude is 30,000 feet

Microwave Relay Station (Self-employed)

Air Route Surveillance Radar Facility (Base station)

Exclusive network

ACC

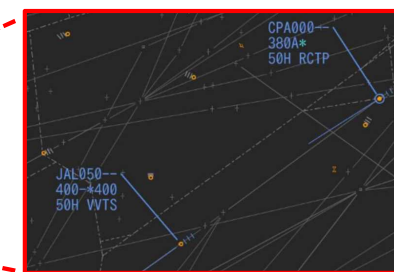
RCAG

ARSR

RCAG



Display equipment



Display screen example

The delivered information to ACC by dedicated communication network displays on the console monitor for en-route control by processing other equipments. Air traffic controllers provide the air traffic control services by using this information.