



# AIRBORNE ISR & AEW

## 2015-16 MARKET REPORT

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# LATEST DEVELOPMENTS [Q3 2015]

IN THE FACE of unpredictable conflict environments and contracting defence budgets, armed forces have to quickly decide where their priorities lie. Among key considerations is the ability to rapidly identify and analyse potential threats, in order to transmit coordinates and information to whomever the appropriate response will come from.

It is hardly surprising, then, that the global market for airborne Intelligence, Surveillance, and Reconnaissance (ISR) systems is [projected](#) to grow at a CAGR of 3.2% between 2013 and 2023, despite shrinking military budgets - airborne ISR represents the eyes and ears of modern defence forces, and major U.S. projects such as the Joint Surveillance Target Attack Radar System (JSTARS) have attracted attention from leading aerospace and defence companies all over the world, including Lockheed Martin, Northrop Grumman, and Boeing. Now, the rest of the world is following suit.



## Boeing secures first Australian order for P-8A Poseidon

In addition to their ongoing JSTARS efforts, Boeing recently [signed](#) an order with the Royal Australian Air Force (RAAF) for four P-8A Poseidon Maritime Patrol Aircraft (MPAs). These will be the first P-8s delivered to the RAAF, and will be accompanied by a full training simulator suite for the platform.

Production of the first unit will begin later this year, with the first delivery scheduled for 2016. As well as ISR, the aircraft will provide the RAAF with Anti-Submarine Warfare (ASuW) and Anti-Surface Warfare (ASW) capabilities, and will co-ordinate with America's MPA fleet, for which Boeing has been contracted to deliver a total of 62, the most recent addition of 9 units having taken place simultaneously with the Australian order. →

# LATEST DEVELOPMENTS [Q3 2015]

## Japan's planned defence budget heavy with aircraft, airborne ISR

Elsewhere in the Asia-Pacific region, the Japanese MoD has [requested](#) their largest military budget in 14 years. The ¥5.09 trillion (\$42.38 billion) budget includes large quantities of planned aircraft acquisitions, including three Northrop Grumman RQ-4 Global Hawk drones, an Unmanned Aerial Vehicle (UAV) platform designed for high-altitude ISR missions.

The budget comes not long after the order of 20 Kawasaki P-1 MPAs by the Japanese Maritime Self-Defence Force (JMSDF), due to be delivered in 2022.

Currently in service with the U.S. Air Force, NATO, and NASA, the RQ-4 is equipped with high-resolution Synthetic Aperture Radar (SAR) and Electro-Optical/Infra-Red (EO/IR) sensors. The platform, like the JMSDF's P-1s, and much of the MoD's acquisitions, is likely to be utilized in overseeing Japan's disputed maritime concerns, such as the Senkaku Islands (Diaoyu in Chinese) in the East China Sea.



## China accused of counterfeiting Israeli hi-tech radar

Chinese radar capabilities and information security in the airborne ISR industry have drawn international attention lately, with a Chinese firm offering what [appears](#) to be a counterfeited version of an Israeli-made Active Electronically-Scanned Array (AESA) radar system.

The claims and descriptions of NAV Technology's advanced fire control radar are identical to descriptions of Elta's ELM-2052, down to the very



# LATEST DEVELOPMENTS [Q3 2015]

photo used for NAV's AESA. The Israeli MoD and state-owned Israel Aerospace Industries (IAI) have denied all knowledge of NAV and of any association between NAV and Elta, the latter of which is owned by IAI.

This news is the latest in a string of claims that China has been forging 'knock-off' versions of foreign-made defence products, with other recent accusations concerning an American inertial navigation system and Boeing's GBU-39 Small Diameter Bomb.



## Mexico chooses CESSNA aircraft for ISR

Mexico's Ministry of the Treasury and Public Finance published documents in late August confirming the selection of the CESSNA 206H Stationair to fulfil their tactical ISR aircraft requirements. 12 206Hs are to be delivered, beginning in 2016 and completing in 2017, with accompanying surveillance packages being delivered later this year.

Value for money was cited as a major factor in choosing the 206H, with \$325,000 for each unit and \$287,000 for the surveillance add-ons being notably cheaper than alternatives presented.

The platforms will go to the Air Surveillance Squadron Command Post (PM-EVA) to support ground troops with tracking and interception operations, likely addressing Mexico's ongoing problems with organized crime, particularly drug cartels and human traffickers.



# LATEST DEVELOPMENTS [Q3 2015]

## Brazil's modernisation of surveillance capabilities underway

A contract signed in October 2014, for 36 Gripen NG aircraft from Sweden's Saab Defence and Security has come into effect. In [a press release](#) made on September 10th, Marcus Wallenberg, Chairman of Saab's Board of Directors stated,

"This important milestone marks the formal start to the Brazilian Gripen NG programme. Our partnership with Brazilian industry strengthens Saab's position in Latin America and supports our strategy for growth through industrial co-operation."

The aircraft is equipped with AESA radar and Infra-Red Search and Track (IRST) system, making them ideal for fulfilling ISR as well as Target Acquisition (ISTAR) roles. The platform also has a variety of strike and EW capabilities.

The initiation of the contract comes as Brazil [continues](#) working on efforts to improve surveillance and security of its borders, with a variety of airborne radar programs to watch over their land and maritime interests. Protection of the enormous and strategically-vital Amazon basin takes particular attention, with Brazilian companies Embraer and ATECH and others such as the USA's Raytheon and Canada's McDonald Dettwiler having been involved in creating the ISR aircraft designed to watch over the rainforest area.



# LATEST DEVELOPMENTS [Q3 2015]

## Denel Seeker 400 UAV enters production

In their [latest annual report](#), Denel has confirmed that production has begun on the Seeker 400 UAV “for our local customer”, indicating that the South African military has indeed ordered the unmanned ISR aircraft.

Whether the Seeker 400s will do to the South African Air Force (SAAF) or Defence Intelligence Division (SANDEF-ID) remains to be seen. The platform can be equipped with SAR, EO and electronic and communication sensors, with two payloads attachable at a time and interchangeable in the field.

South Africa presently endures a myriad of crimes arising from land border and coastal surveillance problems, particularly with human trafficking, illegal poaching, and drug smuggling; the Seeker 400 should greatly enhance the country’s ability to address such criminal concerns.



## Krakov company exhibits new C4ISR technology

At the recent MPSO 2015 exhibition in Kielce, Poland, Krakow-based Comarch company [debuted](#) a new Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) system, dubbed ‘Comarch C3ISR’.

The system was installed for demonstration on a UAV from Poland’s Air Force Institute of Technology, and utilized the system architecture of TRANSBIT’s RADION communications suite for communications and information exchange. Comarch C3ISR is predicted to integrate sufficiently



# LATEST DEVELOPMENTS [Q3 2015]

alongside existing NATO C4ISR assets, allowing Polish forces to more effectively collect, process, and distribute intelligence data at tactical and operational levels.

As Russia grows increasingly daring in Eastern Europe and the Baltic Sea, it becomes ever more necessary that Poland remain capable of identifying submersible threats on its coastline and potential enemies on its border with Belarus.



It is notable that unmanned systems take up an increasing share of demand for airborne surveillance vehicles, capable of performing similar functions to ISR aircraft without the fuel costs or risks to flight crews. The global market for military UAVs was worth \$3.87 billion in 2013; as progress is made in the US's Unmanned Carrier-Launched Airborne Surveillance and Strike systems (UCLASS), and as demand grows in Europe and Asia-Pacific over the next decade, the global market is [projected](#) by analysts to grow to \$5.26 billion by 2022, and most of these military UAVs will be devoted to ISR.

*Developments on UCLASS, JSTARS, and other issues pertinent to airborne ISR will be further discussed by an array of prominent speakers at the [Airborne ISR & C2 Battle Management USA conference](#) at Washington DC, this November.*



# KEY REQUIREMENTS

**ACTIVE PROGRAMMES &  
EXPECTED ACQUISITIONS**

# ACTIVE PROGRAMMES & REQUIREMENTS

Selected acquisition and modernisation from around the world...

## EUROPE



### France

- 4 E-3Fs are undergoing mid-life upgrade.
- Replacement for Sperwer tactical UAV required around 2017.
- 15 Atlantique 2s planned to be upgraded by Navy.
- France will buy 3 more MQ-9A Reaper UAVs in 2015. Currently the French Air Force has 2 Reapers, both based at Niamey with the Escadron de Drones 1/33. As part of French military plans to 2019, the Reaper fleet was expected to grow to 12, but no further orders were planned until 2017.

### Germany

- Upgrade package approved for 8 P-3C Orions.

### Greece

- 2 P-3Bs to be re-activated, plus up to 5 more after mid-life upgrade.

### Italy

- The Aeronautica Militare Italiana (AMI) is procuring P.1HH Hammerhead UAVs. The prototype made its maiden flight in December 2014. In February 2015, at the IDEX exhibition, the Aeronautica Militare Italiana (Italian Air Force) was confirmed as the launch customer for the UAV. Three HammerHead systems will be acquired, comprising six air vehicles and three ground stations. They will be delivered in an ISR configuration in early 2016.
- Possible P-8 Poseidon prospect.



## EUROPE



### Netherlands

- RFP for replacement of Raven UAVs expected in early 2015.
- US approval has been given for the sale of 4 MQ-9 Reaper Block 5 UAVs to the Netherlands.
- Users of the MQ-9 Reaper may establish a joint training unit. The MQ-9 Users Group, comprising Britain, France, Italy and the USA, met for the first time in January 2015, in France, to discuss this.

### Norway

- Possible P-8 Poseidon prospect.

### NATO

- 14 NATOE-3A AWACS aircraft will undergo a flight deck modernisation, with all due to be completed by 2018.
- NATO has 17 E-3As, based at Geilenkirchen, Germany, but it can only afford to upgrade 14.

### OSCE

- S-100 Camcopters are being used by the Organization for Security and Co-operation in Europe (OSCE) in Ukraine, for ceasefire monitoring.

### Russia

- A-50U Mainstay-B AEW&C aircraft are replacing the A-50s. A-100 will be next-generation AEW&C aircraft.
- Russia's United Instrument Manufacturing Corporation, which is a subsidiary of Rostec, has built 2 prototypes of the Chirok (Teal) reconnaissance and strike UAV, which will now be flight-tested.

### Spain

- The Spanish Navy is expected to procure Scan Eagle UAVs.
- Spain is close to selecting a MALE UAV. 2 types are under consideration, the MQ-9 Predator B and Heron TP.
- A decision is expected in 2016, with the total requirement for 4 UAVs and 2 ground control stations.



## EUROPE



### Switzerland

- Hermes 900 selected to replace Ranger UAVs.

### UK

- Thales UK has been selected to supply the radar and mission system for the UK Royal Navy's (RN's) Crowsnest airborne surveillance and control (ASaC) capability.
- The down-selection was announced in May 2015 and a Main Gate investment decision is planned for 2016.
- The Project Crowsnest Airborne Surveillance and Control Programme for the Royal Navy has been accelerated to ensure an IOC of 2019. A limited number (believed to be 7) of Sea King ASaC.7s will be run-on until the end of March 2018, to close the gap with the Crowsnest IOC.
- 4 P-8A Poseidons may be leased, but no decision is likely before the SDSR in 2015. Requirement may be linked to E-3D replacement.
- Ship-borne UAS capability will be tendered competitively after 2017. Scan Eagle currently employed.
- Funding has been to keep the RAF Sentinel and Shadow in service until at least 2018, although 5(AC) Squadron is expected to undergo some reduction to reduce running costs.
- The Airseeker capability of 3RC-135W UK Rivet Joint aircraft is due to be fully operational by mid-2017.
- The formation of the Royal Navy's first UAV squadron, 700X Naval Air Squadron, was announced in November 2014.



### ASIA-PACIFIC



#### Afghanistan

- An airborne signals intelligence (SIGINT) capability has been incorporated into 5 of 18 Afghan National Army Special Operations Forces Pilatus PC-12/47Es.

#### Australia

- Australia is retaining 2 leased Heron UAVs, now the withdrawal from Afghanistan has been completed. Although there is no formal requirement for a replacement for the Herons, UAV capabilities, including an armed UAV, are being considered by a Force Structure Review.
- 4 P-8A Poseidons are on order, from a total requirement of 12 aircraft (8 approved so far). Deliveries are scheduled for 2017-2018, with FOC in 2021.
- The Northrop Grumman MQ-4C Triton maritime UAV will be acquired by the RAAF around the turn of the decade. Australia has committed to up to seven Tritons. An order is expected to be placed in 2016.

#### Bangladesh

- UAVs are being built indigenously for the Navy.

#### India

- The 6th of 8 P-8Is for the Indian navy was delivered in late 2014. The final 2 aircraft will be delivered in 2015. Up to 16 more are on option.
- 12 more DO-228s have been approved for procurement.
- India's defence Acquisition Council (DAC) has approved development of a next-generation AWACS aircraft based on the Airbus A330. An initial two aircraft fitted with an indigenously designed active electronically scanned array (AESA) radar will be produced.
- There are plans to build four more for the Indian Air Force (IAF). Delivery of the first two is expected to take between five and seven years, with the remaining four ordered about halfway through the project.
- The IAF also has 3 Beriev E-50EhIs, fitted with Israeli Phalcon systems, and plans to acquire two more.



### ASIA-PACIFIC



#### India (cont)

- Delivery of the first Embraer EMB-145i AWACS to the Indian Air Force (IAF) was expected in June 2015. The second aircraft was due to be handed over to the IAF in September. The third and final aircraft is planned to enter service in July 2016.

#### Japan

- Replacement required for E-2C Hawkeye. E-2D is possible.
- 4 E-767s are being upgraded. Work is scheduled to complete by mid-2020.
- 3 RQ-4 Global Hawks or MQ-4C Tritons may be procured. Ship-borne UAV also required.
- The Falcon 2000 MSA has been selected by the Japan Coast Guard (JCG).

#### Malaysia

- Requirement for AEW&C aircraft, but subject to delays in procurement.

#### Philippines

- Programme to procure 2 long-range MPAs initially, plus 4 more possibly later.

#### Singapore

- The Full Operational Capability (FOC) of the Republic of Singapore Air Force's (RSAF) Hermes 450 UAV was achieved in March 2015.

#### South Korea

- 8 P-3Cs are being upgraded.
- A contract for 4 RQ-4B Block 30 Global Hawk UAVs was awarded in December 2014. The first RQ-4 delivery is scheduled for 2018.

#### Thailand

- One P.180 Avanti II is being procured by the RTAF for photo-recce.



### NORTH AMERICA



#### Canada

- Possible P-8 Poseidon prospect.

#### USA

- A G.550 equipped with a Conformal Airborne Early Warning System (CAEW) is to be procured by the U.S. Navy, for service entry before the end of 2017. The aircraft will be used as a range support aircraft.
- Delivery has been completed of 21 P-8A Poseidons to the US Navy.
- A total of 61 aircraft are now under contract. The programme is for 117 aircraft for delivery by FY 2019.
- The first operational MQ-8C Fire Scout has been delivered to the US Navy. 70 aircraft are planned to be procured.
- IOC (Initial Operational Capability) was achieved by squadron VAW-125 with the E-2D Advanced Hawkeye in October 2014. 75 E-2Ds planned for procurement.
- All 31 USAF E-3 Sentries are to be upgraded to E-3G standard by 2020. IOC was achieved in July 2014.
- The US Air Force has selected Boeing, Lockheed Martin and Northrop Grumman to undertake its JSTARS Recapitalisation programme.
- The contracts are for a one-year pre-engineering and manufacturing development (pre-EMD) phase, ahead of a downselect in late 2017.
- A subsequent competition will result in an EMD contract for 2 test aircraft, which should be followed by the low-rate production of 3 aircraft for IOC in late 2023. Another 12 aircraft are planned to be purchased by 2024, for a fleet total of 17 aircraft.
- 70 MQ-4C Tritons planned for procurement by U.S. Navy.
- U.S. Army MQ-1C Gray Eagle and RQ-7B Shadow UAVs are being upgraded.
- US UAV manufacturer Insitu has launched a next-generation version of its Scan Eagle UAV.
- 24 more MQ-9 Reaper Block 5 UAVs are on order for the US Air Force, for delivery by the end of September 2017.
- Planned transfer of US Air Force MC-12W Liberty ISR aircraft to US Army control. The USAF will provide the processing, exploitation and dissemination of MC-12W information in FY 2015 in support of US Army missions. In FY 2016, the army personnel will take on the mission.



### NORTH AMERICA



#### USA (cont)

- It is also planned to transfer 33 MC-12Ws to USAF Special Operations Command.
- 3 RQ-21A Blackjack UAV systems are being procured for the USMC, by 2016.
- An MC-12W Liberty is to be modified to an Enhanced Medium Altitude Reconnaissance and Surveillance System – Multi-Intelligence (EMARSS-M) configuration. The US Army plans to operate at least 12 EMARSS aircraft and is considering procuring a further 20.
- The US Army is procuring 6 DHC-8-315 aircraft, which are configured with 'Saturn Arch' and 'Desert Owl' intelligence systems that were used in Afghanistan.
- The MQ-1 UAV will be retired by the US Air Force by 2018, after more than two decades of service.
- The USAF has reduced its operational tempo from 65 steady-state MQ-1 and MQ-9 combat air patrols, or orbits, to 60.
- The U-2 is planned to be retired in 2019 at the insistence of the US Air Force, as it cannot afford to operate both the U-2 and the RQ-4 Global Hawk.
- The current U-2S fleet consists of 27 mission aircraft and five twin-seat trainers.
- Lockheed is developing the RQ-X as a U-2 replacement. The RQ-X will be "survivable" but not 'unnoticeable.'





## NORTH AMERICA



### USA (cont)

- Summary of U.S. short-term UAV procurement plans:

	FY2014	FY2015	FY2016
<b>US AIR FORCE</b>			
MQ-9A	20	24	29
<b>US ARMY</b>			
MQ-1 Predator	15	19	17 (+2)
<b>US NAVY</b>			
MQ-4C	-	-	3
MQ-8C	2	2 (+3)	2
RQ-21A	-	0 (+3)	0 (+3)



# LATIN AMERICA & THE CARIBBEAN



### **Brazil**

- RFP expected for Maritime ISR System (UAV). Scan Eagle and Heron in contention.
- E-99 AEW&C aircraft modernisation programme scheduled for completion in 2017.

### **Colombia**

- Airtec Inc will provide ISR services in Colombia in support of the U.S. Army Southern Command.

### **Costa Rica**

- A Beechcraft F90 King Air has recently been acquired by Costa Rica's Ministry of Public Security/Air Surveillance Service.

### **Mexico**

- SkyDoc Aerostat to be procured for long-range land surveillance requirement.
- A newly acquired Mexican Naval Air Arm Beechcraft King Air 350ER has re-entered service with ISR equipment.



# MIDDLE EAST & NORTH AFRICA



### Iraq

- A contract has been awarded for a single King Air 350 extended range aircraft modified with ISR capability for the Iraqi Air Force (IqAF). Under the Peace Dragon programme, the IqAF has taken delivery of 6 King Air 350ERs, of which 5 were in ISR configuration and one a standard transport version. Delivery is expected in 2015.

### Israel

- 'Personal UAV' required for infantry.

### Saudi Arabia

- 2 Beechcraft King Air 350s are to be modified for ISR missions for the RSAF, by the end of 2015. At least 12 King Air 350s are in service, but it is not known how many will be ISR-configured.
- An initial contract to modernise the Royal Saudi Air Force (RSAF) fleet of 5 E-3A Sentry Airborne Warning and Control System (AWACS) aircraft was awarded in November 2014.
- Possible P-8 Poseidon prospect

### Turkey

- The Anka Block B UAV has completed its maiden flight.
- The first Anka Block B, of 10 on order, is scheduled to be delivered to the Turkish Air Force in 2016. All 10 are expected to be in service by 2018.

### Yemen

- The U.S. is looking to equip Yemen with 25 Light ISR aircraft.



# SUB-SAHARAN AFRICA



### Ghana

- UAVs may be procured.

### Nigeria

- Nigeria has purchased an unspecified reconnaissance aircraft. The crash of a UAV in Nigeria in January 2015, has revealed that its forces appear to be operating Chinese-built CASC Rainbow CH-3, or CH-3A, UAVs.

**HOLDINGS**

**WORLD'S ISR AND  
AEW AIRCRAFT**

COUNTRY	ISR / AEW AIRCRAFT INVENTORY
BELARUS	<ul style="list-style-type: none"> <li><b>UAVs:</b> Grif-100</li> </ul>
BELGIUM	<ul style="list-style-type: none"> <li><b>UAVs:</b> B-Hunter (12)</li> </ul>
BULGARIA	<ul style="list-style-type: none"> <li>1 AN-30</li> </ul>
CROATIA	<ul style="list-style-type: none"> <li><b>UAVs:</b> Hermes 450; Skylark I</li> </ul>
CZECH REPUBLIC	<ul style="list-style-type: none"> <li>2 L.410s are operated for surveying</li> <li><b>UAVs:</b> Raven</li> </ul>
DENMARK	<ul style="list-style-type: none"> <li>3 Challenger 604 MPA</li> <li><b>UAVs:</b> Raven-B; Sperwer; Aerovironment UAVs on order</li> </ul>
FRANCE	<ul style="list-style-type: none"> <li>4 E-3F (AEW); 22 Atlantic MPA (Navy); 3 E-2C Hawkeye (AEW) (Navy); 5 Falcon 50 MPA (Navy); 5 Falcon 200 MPA (Navy)</li> <li><b>UAVs:</b> Heron TP; MQ-9A Reaper (16 on order – delivery 2014-2015/16); Sperwer II (30 + 5 on order); Skylark I</li> </ul>
GEORGIA	<ul style="list-style-type: none"> <li><b>UAVs:</b> Hermes 450</li> </ul>
GERMANY	<ul style="list-style-type: none"> <li>1 DO-228NG MPA (Navy); 8 P-3C Orion MPA (Navy)</li> <li><b>UAVs:</b> Heron (3); K20; Luna; Aladin; Camcopter (Navy)</li> </ul>



COUNTRY	ISR / AEW AIRCRAFT INVENTORY
GREECE	<ul style="list-style-type: none"> <li>4 EMB.145 (AEW); 2 King Air 200 (Survey)</li> </ul>
HUNGARY	<ul style="list-style-type: none"> <li><b>UAVs:</b> Skylark I</li> </ul>
IRELAND	<ul style="list-style-type: none"> <li>1 BN-2; 2 CN-235 MPA</li> <li><b>UAVs:</b> Orbiter</li> </ul>
ITALY	<ul style="list-style-type: none"> <li>4 Atlantic MPA (replacement by 4 ATR-72-600s by 2015); 1 G.III; 2 G.550 (AEW – on order); 4 AW101 (AEW) (Navy); 3 Bell 212 (Navy)</li> <li><b>UAVs:</b> MQ-1B Predator (6); MQ-9B Reaper (6 + 2 on order); Raven-B; Camcopter S-100 (1- Navy); Scan Eagle (Navy)</li> </ul>
LITHUANIA	<ul style="list-style-type: none"> <li><b>UAVs:</b> Scan Eagle</li> </ul>
MALTA	<ul style="list-style-type: none"> <li>2 BN-2 MPA; 2 King Air 200 MPA</li> </ul>
NATO	<ul style="list-style-type: none"> <li>17 E-3A (AEW)</li> <li><b>UAVs:</b> Falco (20); Shadow 200 (12)</li> </ul>
NETHERLANDS	<ul style="list-style-type: none"> <li><b>UAVs:</b> Scan Eagle; Raven; Sperwer; Skylark I; Aerostar; Aladin</li> </ul>
NORWAY	<ul style="list-style-type: none"> <li>6 P-3C/N Orion</li> <li><b>UAVs:</b> Aladin</li> </ul>



COUNTRY	ISR / AEW AIRCRAFT INVENTORY
POLAND	<ul style="list-style-type: none"> <li>9 AN-28 MPA (Navy)</li> <li><b>UAVs:</b> Scan Eagle; Orbiter (12); Heron (2 on loan); Skylark I; Aerostar; Flyeye (Mini-Army)</li> </ul>
PORTUGAL	<ul style="list-style-type: none"> <li>5 C.295; 5 P-3C Orion</li> </ul>
ROMANIA	<ul style="list-style-type: none"> <li>2 AN-30</li> <li><b>UAVs:</b> Shadow 600; Scan Eagle</li> </ul>
RUSSIA	<ul style="list-style-type: none"> <li>16 A-50 (AEW); 15 IL-38 MPA (Navy); 30 IL-20/22; 13 AN-30; 1 TU-134</li> <li><b>UAVs:</b> Searcher; I-View; Bird Eye 400</li> </ul>
SERBIA	<ul style="list-style-type: none"> <li><b>UAVs:</b> Orbiters</li> </ul>
SLOVAKIA	<ul style="list-style-type: none"> <li>1 L.410</li> </ul>
SPAIN	<ul style="list-style-type: none"> <li>5 P-3A/M Orion MPA; 8 CN-235 MPA</li> <li><b>UAVs:</b> Raven; SIVA (3); Searcher</li> </ul>
SWEDEN	<ul style="list-style-type: none"> <li>2 Saab 340 (AEW)</li> <li><b>UAVs:</b> Sperwer; Shadow 200 (2 Systems); Puma AE/Wasp (12 + 18 on option) (Army)</li> </ul>
SWITZERLAND	<ul style="list-style-type: none"> <li><b>UAVs:</b> Ranger (24)</li> </ul>







COUNTRY	ISR / AEW AIRCRAFT INVENTORY
UK	<ul style="list-style-type: none"> <li>• 6 E-3D (AEW); 5 Sentinel R.1; 5 Shadow R.1; 3 BN-2; 11 BN-2 +1 more required (Army); 10 Sea King AsaC 7 (AEW)</li> <li>• <b>UAVs:</b> Watchkeeper (54 on order); Hermes 450 (10 on loan); MQ-9A Reaper (10); T-Hawk (18 were operated in Afghanistan); Desert Hawk III (239 were operated in Afghanistan); Raven B; Black Hornet (Micro UAV (324) – 64 were operated in Afghanistan); Scan Eagle (Navy)</li> </ul>
UKRAINE	<ul style="list-style-type: none"> <li>• 1 AN-30; 1 AN-26</li> </ul>



COUNTRY	ISR / AEW AIRCRAFT INVENTORY
AUSTRALIA	<ul style="list-style-type: none"> <li>• 6 B.737 Wedgetails (AEW); 15 AP-3C Orion MPA; 12 P-8A MPA Required</li> <li>• <b>UAVs:</b> Heron (3); Raven; Skylark I</li> </ul>
AZERBAIJAN	<ul style="list-style-type: none"> <li>• <b>UAVs:</b> Heron</li> </ul>
BANGLADESH	<ul style="list-style-type: none"> <li>• 2 Dornier 228NG (Navy)</li> </ul>
CHINA	<ul style="list-style-type: none"> <li>• 5 KJ2000 (AEW); 7 Y-8/KJ200 (AEW - Air Force) + 3 Navy (AEW);</li> <li>• 2 B.737 MPA; 5 Challenger 870 + 2 on order; 3 Y-8 MPA (Navy);</li> <li>• 3 Y-8/KJ200 AEW (Navy)</li> <li>• <b>UAVs:</b> Vulture (1) Note; many indigenous designs operated and under development</li> </ul>
INDIA	<ul style="list-style-type: none"> <li>• 3 EMB.145i (AEW); 3 IL-76 + 2 on order (AEW); 5 IL-38 MPA (Navy); 8 P-8I MPA on order + 16 more on option (Navy); 5 B.707; 2 G.100 Astra; 8 BN-2 MPA (Navy); 26 DO-228 MPA (Navy); 9 KA-31 (AEW) (Navy); 1 Global 5000</li> <li>• <b>UAVs:</b> Heron (50 Air Force + more (Navy); Searcher II (100+)</li> </ul>





COUNTRY	ISR / AEW AIRCRAFT INVENTORY
INDONESIA	<ul style="list-style-type: none"> <li>• 3 B.737 MPA; 1 CN-235 MPA + 2 on order (Air Force) ; 3 CN-235 + 2 on order + 3 more required (Navy); 29 Nomad 22/24 MPA (Navy); 6 C.212 MPA (Navy). Note: C.295s are operated in a Transport role.</li> <li>• <b>UAVs:</b> Searcher</li> </ul>
JAPAN	<ul style="list-style-type: none"> <li>• 4 B.767 (AEW); 13 E-2C Hawkeye (AEW); 82 P-3C Orion MPA (JMSDF); 7 P-1 + 5 on order (further 60 required) MPA (JMSDF); 4 Lear Jet 36</li> </ul>
MALAYSIA	<ul style="list-style-type: none"> <li>• 4 King Air 200 MPA</li> <li>• <b>UAVs:</b> Scan Eagle</li> </ul>
NEW ZEALAND	<ul style="list-style-type: none"> <li>• 6 P-3K Orion MPA</li> </ul>
PAKISTAN	<ul style="list-style-type: none"> <li>• 4 Saab 2000 (AEW); 3 Y-8/ZDK-03 + 1 on order (AEW); 6 P-3C Orion MPA (Navy); 7 F-27 MPA (Navy); 4 King Air 350; 1 Hawker 850 (Navy)</li> <li>• <b>UAVs:</b> Falco; Shahpar (Army); Burraq; Luna X-2000</li> </ul>
SINGAPORE	<ul style="list-style-type: none"> <li>• 4 G.550 (AEW); 5 F50 MPA</li> <li>• <b>UAVs:</b> Heron; Hermes 450; Searcher; AeroStar; Scan Eagle</li> </ul>



COUNTRY	ISR / AEW AIRCRAFT INVENTORY
SOUTH KOREA	<ul style="list-style-type: none"> <li>• 4 B.737 (AEW); 16 P-3C/K Orion MPA (Navy); 8 Hawker 800; 18 S-3B MPA (Navy) Required</li> <li>• <b>UAVs:</b> Global Hawk (4 on order); Searcher; Skylark II</li> </ul>
SRI LANKA	<ul style="list-style-type: none"> <li>• 2 King Air 200 MPA</li> <li>• <b>UAVs:</b> Searcher; Blue Horizon</li> </ul>
TAIWAN	<ul style="list-style-type: none"> <li>• 6 E-2K (AEW); 11 S-2 MPA; 4 P-3C MPA; 2 Beech 1900</li> </ul>
THAILAND	<ul style="list-style-type: none"> <li>• 2 Saab 340 (AEW); 5 DA-42; 7 DO-228 MPA (Navy); 2 F-27 MPA (Navy); 1 P-3T MPA (Navy); 1 P180 on order</li> <li>• <b>UAVs:</b> Searcher II; Aerostar</li> </ul>
TURKMENISTAN	<ul style="list-style-type: none"> <li>• <b>UAVs:</b> Falco</li> </ul>
VIETNAM	<ul style="list-style-type: none"> <li>• 1 AN-28 MPA; 3 DHC-6 Guardian 400 MPA/SAR (Navy)</li> </ul>



COUNTRY	ISR / AEW AIRCRAFT INVENTORY
CANADA	<ul style="list-style-type: none"> <li>• 18 CP-140 Aurora MPA</li> <li>• UAVs: Heron (3); Sperwer; Skylark I &amp; II; Scan Eagle</li> </ul>
USA	<ul style="list-style-type: none"> <li>• 30 E-3B/C Sentry (AEW); 69 E-2C/D Hawkeye + 36 on order + 24 required (AEW) (Navy); 16 E-8C JSTARS; 1 B.707; 4 Dash-8/E-9; 1 DHC-6; 2 Falcon 20/200; 41 MC-21W; 1 NC-21; 11 RC-26; 2 OC-135; 16 U-28; 26 U-2S; 10 WC-130J; 2 DHC-7 (Army); 82 RC-12 (Army) + 6 Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS) on order; 115 P-3C Orion MPA (Navy); 24 P-8A Poseidon MPA (Navy) + 83 on order; 1 DHC-6 (Navy); 1 Metro 23 (Navy); 2 S-3B (Navy)</li> <li>• <b>UAVs:</b> MQ-1C Gray Eagle (131+); RQ-11 Raven (1,272); I-Gnat ER; MQ-5B Hunter; RQ-7B Shadow; RQ-16; RQ-20 Puma; Wasp (22,000 requirement) – <i>Army</i></li> <li>• MQ-4C Triton (70 on order) – IOC 2016; Heron (2); MQ-8B Fire Scout (168); MQ-8C Fire Scout (30 planned); RQ-16 T-Hawk (372); Scan Eagle, RQ-21A Blackjack – <i>Navy</i></li> <li>• RQ-4 A/B Global Hawk (66 – 27 Active); MQ-1B Predator (up to 268 delivered); RQ-11B Raven (108); Wasp (442); Scan Eagle; MQ-9B Reaper (319); RQ-170 Sentinel – <i>Air Force</i></li> <li>• Camcopter; Viking 400 (6); RQ-21 Integrator; Puma – Special Operations Command (SOCOM) RQ-11B Raven; RQ-7B Shadow; K-Max; Wasp III; Scan Eagle – <i>Marines</i></li> </ul>

## LATIN AMERICA & THE CARIBBEAN



COUNTRY	ISR / AEW AIRCRAFT INVENTORY
<b>ARGENTINA</b>	<ul style="list-style-type: none"> <li>4 P-3B Orion MPA (Navy); 2 S-2 Tracker MPA (Navy); 6 King Air 200 MPA (Navy)</li> <li><b>UAVs:</b> Yarara</li> </ul>
<b>BAHAMAS</b>	<ul style="list-style-type: none"> <li>1 King Air 350 MPA</li> </ul>
<b>BRAZIL</b>	<ul style="list-style-type: none"> <li>5 R-99A (AEW); 8 P-3AM Orion MPA; 12 EMB.110 MPA; 3 ERJ-145; 6 Lear Jet 35. Note: C-295s are operated in SAR role.</li> <li><b>UAVs:</b> Heron (15) – Police; Hermes 450 (more on order)</li> </ul>
<b>CHILE</b>	<ul style="list-style-type: none"> <li>3 C-295 MPA (Navy) (4 more required); 3 P-3A Orion MPA (Navy); 1 B707 (AEW); 5 EMB.110 MPA (Navy); 2 SR-22 + 1 on order</li> <li><b>UAVs:</b> Hermes 900</li> </ul>
<b>COLOMBIA</b>	<ul style="list-style-type: none"> <li>3 CN-235 (Navy); 6 Cessna 208; 5 Citation Ultra MPA; 2 Turbo Commander MPA. Note: C-295s are operated in transport role.</li> <li><b>UAVs:</b> Hermes 450 and 900; Scan Eagle</li> </ul>
<b>ECUADOR</b>	<ul style="list-style-type: none"> <li>2 CN-235 MPA (Navy); 4 King Air 200 MPA (Navy)</li> <li><b>UAVs:</b> Heron (2) (Navy); Searcher II</li> </ul>
<b>HONDURAS</b>	<ul style="list-style-type: none"> <li>1 King Air 200 MPA</li> </ul>



# LATIN AMERICA & THE CARIBBEAN



COUNTRY	ISR / AEW AIRCRAFT INVENTORY
MEXICO	<ul style="list-style-type: none"> <li>• 1 ERJ-145 (AEW); 2 ERJ-145; 2 C.212 MPA (Navy); 6 CN-235 + 1 on order MPA (Navy); 4 Metro III</li> <li>• <b>Note:</b> No E-2s remain operational</li> <li>• <b>UAVs:</b> Hermes 450 (4?); Heron (3); Hermes 900 (2) – Federal Police; Skylark 1; Orbiter</li> </ul>
PERU	<ul style="list-style-type: none"> <li>• 2 Metro 23; 2 F.60 MPA (Navy); 3 King Air 200 MPA (Navy); 1 Lear Jet 36</li> </ul>
TRINIDAD & TOBAGO	<ul style="list-style-type: none"> <li>• 2 Metro 23 MPA</li> </ul>
URUGUAY	<ul style="list-style-type: none"> <li>• 2 C.212 MPA; 1 King Air 200 MPA (Navy)</li> </ul>
VENEZUELA	<ul style="list-style-type: none"> <li>• 3 C.212 MPA (Navy)</li> </ul>



COUNTRY	ISR / AEW AIRCRAFT INVENTORY
AFGHANISTAN	<ul style="list-style-type: none"> <li>10 PC-12NG + 8 on order</li> </ul>
ALGERIA	<ul style="list-style-type: none"> <li>3 King Air 200/350 MPA; 6 Beech 1900.</li> <li><b>Note:</b> C.295s are operated in a transport role</li> </ul>
EGYPT	<ul style="list-style-type: none"> <li>7 E-2C Hawkeye (AEW).</li> <li><b>Note:</b> C.295s are operated in a transport role</li> </ul>
IRAN	<ul style="list-style-type: none"> <li>5 P-3F Orion MPA</li> <li><b>UAVs:</b> H-110; Fotros; Shahed 129; Yasir</li> </ul>
IRAQ	<ul style="list-style-type: none"> <li>3 Cessna 208; 8 CH2000; 5 King Air 350 + 1 on order; 2 SB7L-360</li> </ul>
ISRAEL	<ul style="list-style-type: none"> <li>2 G.550 (AEW) (3 more required); 1 B.707 (AEW); 3 Westwind MPA; 18 King Air 200; 7 RC-12</li> <li><b>UAVs:</b> Heron 450; Aerostar; Hermes 900; Skylark I</li> </ul>
JORDAN	<ul style="list-style-type: none"> <li><b>UAVs:</b> Camcopter; Falco</li> </ul>
LEBANON	<ul style="list-style-type: none"> <li><b>UAVs:</b> Raven</li> </ul>
LIBYA	<ul style="list-style-type: none"> <li>1 AN-32</li> </ul>







COUNTRY	ISR / AEW AIRCRAFT INVENTORY
MOROCCO	<ul style="list-style-type: none"> <li>5 CL-415 MPA</li> </ul>
OMAN	<ul style="list-style-type: none"> <li>3 C.295s being delivered</li> </ul>
QATAR	<ul style="list-style-type: none"> <li>3 B.737 AEW Required</li> </ul>
SAUDI ARABIA	<ul style="list-style-type: none"> <li>6 E-3A (AEW)</li> <li><b>UAVs:</b> Falco</li> </ul>
TUNISIA	<ul style="list-style-type: none"> <li><b>UAVs:</b> Scan Eagle</li> </ul>
TURKEY	<ul style="list-style-type: none"> <li>4 B.737 (AEW); 1 CN-235 MPA; 6 CN-235 MPA (Navy); 6 ATR-72 MPA on order (Navy)</li> <li><b>UAVs:</b> Heron (10); MQ-1B Predator (6); Shadow 600; Gnat 750 (6); I-Gnat ER (16); Searcher II; Aerostar; Bayraktar (200+); Anka (10 on order, delivery 2016-2018); Karayel</li> </ul>
UAE	<ul style="list-style-type: none"> <li>2 Saab 340 (AEW); 2 Dash 8 MPA; 3 King Air 90</li> <li><b>UAVs:</b> Camcopter (80 + 20 on option); Predator XP</li> </ul>
YEMEN	<ul style="list-style-type: none"> <li>2 Cessna 208</li> </ul>



COUNTRY	ISR / AEW AIRCRAFT INVENTORY
ANGOLA	<ul style="list-style-type: none"> <li>• 4 C.212 MPA</li> <li>• <b>UAVs:</b> Aerostar</li> </ul>
GHANA	<ul style="list-style-type: none"> <li>• 2 DA-42.</li> <li>• <b>Note:</b> C.295s are operated in a transport role.</li> </ul>
KENYA	<ul style="list-style-type: none"> <li>• 1 Cessna 208 on order</li> </ul>
MALI	<ul style="list-style-type: none"> <li>• 3 F406 Caravan II MPA on order</li> </ul>
MAURITANIA	<ul style="list-style-type: none"> <li>• 3 BN-2 MPA; 2 Cessna 208 MPA + 1 on order; 2 PA-31 MPA</li> </ul>
NIGER	<ul style="list-style-type: none"> <li>• 2 DA42; 1 Cessna 208 on order</li> </ul>
NIGERIA	<ul style="list-style-type: none"> <li>• 2 ATR-42 MPA</li> <li>• <b>UAVs:</b> Indigenous Gulma TUAV</li> </ul>
SENEGAL	<ul style="list-style-type: none"> <li>• 2 King Air 200</li> </ul>
SOUTH AFRICA	<ul style="list-style-type: none"> <li>• 5 DC-3 MPA</li> <li>• <b>UAVs:</b> Vulture; Seeker II</li> </ul>



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