O-1
Cessna Bird Dog

Specifications:
- span: 36', 10.97 m
- length: 25', 7.62 m
- engines: 1 Continental O-470-11
- max. speed: 130 mph, 209 km/h

The Bird Dog was a light observation and forward air control aircraft used by the US Army and the USMC. On 18 September 1962 aircraft remaining in service were redesignated as follows:

**USAF/US Navy Tri-service**
- L-19A O-1A
- TL-19A TO-1A
- OE-1 O-1B
- OE-2 O-1C
- TL-19D TO-1D
- L-19E O-1E
- TL-19E TO-1E

The O-1C version was fitted with a O-470-2 engine and, in addition to the production as OE-2, a number were built outright as O-1C with serials 63-12741/12744 and 151776/151779.

Several TO-1Ds were also converted as O-1D air controller aircraft. They were fitted with O-470-15 engines, as was the TO-1D. Serials included 57-2903, 57-2952, 57-2974.

The O-1E version had a length of 25'10", 7.87 m and, in addition to those built as L-19E, a number were built outright as O-1E. The serials concerned were 63-12745/12758.

The designation O-1F was applied to some other conversions of the TO-1D as forward air controller aircraft. Serials included 56-2616, 57-2729, 57-2799, 57-2809, 57-2813, 57-2827, 57-2847, 57-2860, 57-2861, 57-2863, 57-2864, 57-2866, 57-2870, 58-2872, 58-2873, 58-2874, 58-2883, 57-2885, 57-2892, 58-2897, 57-2899, 57-2921, 57-2937, 57-2942, 57-2976 and 57-2977.

A number of O-1As were converted as O-1G forward air controller aircraft for the USMC and received new serials 156678/156685. Serials 51-4899, 51-5078, 51-12108 and 51-12750 have also been associated with the O-1G.

*Refer also to L-19, OE*
O-2
Cessna 337M Super Skymaster

Specifications:
span: 38'2", 11.63 m
length: 29'9", 9.07 m
engines: 2 Continental IO-360-C/D
max. speed: 199 mph, 320 km/h

The O-2 was a forward air controller aircraft based on a civil aircraft of which the first of app. 1500 flew on 28 February 1961. The aircraft were extensively used in Vietnam and operations included psychological warfare. The O-2A version was ordered from 29 December 1966 with serials 67-21295/21439, 68-6857/6903, 68-10828/10872, 68-10962/11070, 68-11122/11173, 69-7601/7669 and 72-1460/1463. The total includes four civilian aircraft procured for Sri Lanka. The US Navy also used 6 O-2As but these retained USAF serials. A batch with serials 70-1409/1442 was cancelled. Aircraft 68-11032 was also flown as JO-2A.

The O-2B version constituted 31 commercial aircraft purchased with serials 67-21440/21470 and which were fitted with loudspeakers, leaflet dispensers etc. for psychological warfare. A private conversion with 2 Allison 250-B-15 engines, has been labeled as O-2T.

Surplus O-2s were eventually supplied to other nations whilst 68-11155 was converted as a single engined aircraft and used for research work at the Naval Postgraduate School. The US Navy acquired two aircraft in 2009 with serials 167782 and 167783. They were designated as O-2A and one of these may have been the civilian registered N84NX which was operated by the Naval Postgraduate School.
O-3
Lockheed QT 3

Specifications:
span:  57', 16.76 m
length:  29'4", 8.94 m
engines: 1 Continental O-360
max. speed:  130 mph, 208 km/h

The O-3 was an observation aircraft developed from a Schweizer glider. The aircraft was very quiet and at an altitude of 400 feet a gentle rustling noise could be heard whereas it could not be heard at a distance of 800 feet.
The first flight was in May 1969 and 14 aircraft are believed to have been ordered for the US Army with the designation YO-3A and serials 69-18000/18013 although the last three may not have been built. They were used in Vietnam and were later declared surplus and some were transferred to governmental law enforcing agencies. One was transferred to NASA as NASA718.

Refer also to X-26.
DOD Directive 4120.15-L (April 1974) identifies the ZO-4A designation which was used for a project to develop a quiet aircraft. Funding was cancelled in Fiscal Year 1970 (AWST, 8 Dec 1969, p.26). Although there is no evidence to support this, it may be possible that this designation was used for a 1969 USAF proposal to purchase 28 Wren 460QB aircraft in lieu of the Lockheed YO-3B. The 460QB was a modified version of the Wren 460B, itself a derivative of the Cessna 182. The basic Wren 460 had a span of 36'2", 11.02 m, a length of 27'4", 8.33 m, a Continental O-470-R and a max.speed of 160 mph, 257 km/h. The designation OX-1 was also associated with this.
**O-5**

De Havilland Canada DASH-7

Specifications:
- **span:** 93', 28.35 m
- **length:** 80'8", 24.58 m
- **engines:** 4 Pratt & Whitney PT6A-50
- **max. speed:** 266 mph, 428 km/h

(Source: A. K. Radecki)

The Dash-7 flew for the first time on 27 March 1975 and the US Army aircraft were procured from the civil market in app. 1995. The US Army used one designated as **O-5A** for imagery intelligence and 2 **EO-5Bs** as communications intelligence aircraft. The O-5A had civilian registration N5382W, whilst the EO-5Bs had registrations N705GG and N59AG.

In addition the US Army used seven aircraft with the designation RC-7 and various **RC-7Bs** were used for anti-drug operations and other military intelligence gathering missions. Photographic evidence suggests that the aircraft were operated in a civilian guise and carried the civil registrations including N42RA, N158CL, N89068, N53993, N176RA, N177RA, N765MG. These were later redesignated as **EO-5C**. Of these N176RA was later identified with serial 99-0076, after the c/n. There was also a **TO-5C** training version.

Refer also to C-7
De Havilland Canada DHC-8-315

Specifications:
span: 90’, 27.43 m
length: 84’3”, 25.68 m
engines: 2 Pratt & Whitney PW123
max. speed: 328 mph, 528 km/h

The designation RO-6A was used for a conversion of the DHC-8 for use on A-ISR reconnaissance missions, equipped with ARL-E sensor array.
It is possible that the designation is associated with a number Dash 8 leased from Dynamic Avlease with civilian registrations operated by the US Army since 2011. These aircraft were N8100V (c/n 024), N8200L (c/n 455), N8200H (c/n 494), N8300G (c/n 348), N8300L (c/n 352), N8300T (c/n 358) and N8300Y (c/n 332).

Refer also to E-9