How the F-35A and the F-15EX compare

**Primary Functions**
- F-35A: Stealth, all-weather strike, close air support and air superiority; intelligence, surveillance, and reconnaissance; maritime strike; electronic warfare, and command and control.
- F-15EX: Air superiority and strike in less- or uncontested airspace.

**Procurement Costs**
- **F-35A**
  - 2018 (actual): $89.2 million
  - 2025 (projected): $80 million
- **F-15EX**
  - 2019 (projected): $98.3 million
  - 2025 (projected): $80.3 million

**Cost Per Flying Hour**
- **F-35A**
  - 2019: $35,000
  - 2025: $24,000
- **F-15EX**
  - 2019: $27,000
  - 2025: <$27,000

**Prime Contractors**
- **F-35A**
  - Lockheed Martin, Northrop Grumman
- **F-15EX**
  - Boeing

**Production Capacity**
- **F-35A**
  - 188 to 221 annually for all versions of the F-35 (including B and C models)
- **F-15EX**
  - 24 to 36 annually

**Initial Operational Capability**
- **F-35A**
  - 2016
- **F-15EX**
  - 2017

**Inventory**
- **F-35A**
  - 165+ (USAF only)
- **F-15EX**
  - 1975

**Engine**
- **F-35A**
  - Pratt & Whitney F135
- **F-15EX**
  - Pratt & Whitney F100-PW-229 or GE F110-GE-129 (USAF to decide)

**Accommodation**
- **F-35A**
  - One pilot
- **F-15EX**
  - Two aviators

**Performance**
- **F-35A**
  - Combat Radius: 570 Miles
  - Mach 1.6
  - Max G-Loading: 9Gs
  - Ceiling: 50,000
- **F-15EX**
  - Combat Radius: 1,100 Miles
  - Mach 2.5
  - Max G-Loading: 9Gs
  - Ceiling: 60,000

**Fuel Capacity**
- **F-35A**
  - Internal: 14,250 pounds
  - External: Two fuel tanks on wing hard points
- **F-15EX**
  - Internal: 13,550 pounds
  - External: Three underwing hard points and centerline hard points can accommodate fuel tanks

**Weapon Capacity**
- **F-35A**
  - All US and NATO air-to-air weapons; most US and NATO air-to-ground weapons.
  - Internal: 5,700 pounds
  - External: Two external fuel tanks on wing hard points
- **F-15EX**
  - All US air-to-air weapons; most US air-to-ground weapons; some "outsize" weapons, such as 5,000-pound GBU-28.
  - Capacity: 29,500 pounds, all external, on nine stations
  - 20 mm cannon

**Service Life**
- **F-35A**
  - Design life 8,000 hours
  - Test to 24,000 + hours
- **F-15EX**
  - Design life 8,000 hours
  - Test to 30,000 + hours

**Major Differences From Earlier Versions**
- **F-35A**
  - Multiple software and processor refreshes, including to weapons capabilities and electronic warfare systems.
  - Current in-production version is the Block 3F Baseline; Block 4 development, now underway, will include software and weapon updates on a twice-annual pace through 2024.
- **F-15EX**
  - New cockpit displays similar to those on the T-X trainer, and the Eagle Passive Active Warning Survivability System (EPAWS).

**Allied Operators**
- **F-35A**
  - Allied Operators
  - Foreign Sales
- **F-15EX**
  - Prime Contractor: Boeing

**Congressional Support**
- **F-35A**
  - Major constituencies for F-35 production: Texas, California, Georgia, Florida. Major bases and installations hosting or supporting the F-35A: Utah, Arizona, Florida, Nevada. Lockheed has placed F-35 subcontracts in all 50 states.

**Foreign Sales**
- **F-35A**
  - Over 20 Foreign Sales
- **F-15EX**
  - Soft كامل

**Weapons**
- **F-35A**
  - External: Two fuel tanks on wing hard points
- **F-15EX**
  - External: Three underwing hard points and centerline hard points can accommodate fuel tanks

**Detection Range vs. S-400 Missile System**
- **F-35A**
  - Range: 21 miles
- **F-15EX**
  - Range: 150+ (USAF only)

**Radar**
- **F-35A**
  - Tested to 24,000 + hours
  - Design life 8,000 hours
- **F-15EX**
  - Tested to 30,000 + hours
  - Design life 8,000 hours

Sources: Data from Air Force Magazine’s USAF Almanac, Aviation Week Analysis, Boeing, F-35 Joint Program Office, globalsecurity.org, Lockheed Martin, USAF.