The Air Force & Arizona Star Got It Right the First Time:

The F-35 is much louder than the F-16 and A-10

The Arizona Star reported that the F-35 fighter projects 121 decibels (db) of noise to the ground, 25 decibels more than the F-16, at the same speed and altitude. Later, the Star corrected the estimate of the F-35 noise to 98 db, based on numbers provided by Davis-Monthan.

But D-M’s numbers are contradicted by 6 years of consistent Air Force reports.

Five independently prepared Air Force documents show that at most altitudes and speeds, the noise on the ground below the F-35 will be an average of 16 decibels louder than the loudest F-16 currently flying from D-M/TIA (a difference of roughly 60 times the physical energy & more than three times as loud perceptually).

1. The Elgin AFB Environmental Impact Statement (EIS) reports the F-35 at 500 mph was 121 db, & the F-16 was 97 db (a 24 db difference).

2. A joint empirical test by the AF & Lockheed reported the F-35 at 121 db at 1,000 ft, and 500 mph. While the F-16 at the same speed and height, was 114 db (a 7 db difference).

3. The Nellis EIS, reported the F-35 at minimum (cruising) power at 1,000 feet was 103 db, and the F16 at 89 db (a 14 db difference).

4. The Luke Air Force Base EIS, report landing estimates for the F-35, at normal military power (full throttle without afterburner) was 79 db, compared to the 66 db of the F-16 (a 13 db difference).

5. The Burlington Vermont EIS, reports that the F-35 produces 115 db at ground level, on take-off, while the F-16 produces 94 db (a 21 db difference).

These five Air Force reports show that D-M’s claim is completely wrong.

And, Regardless of the real difference between the F-35 and the F-16, it will be at least 25 db louder than D-M’s A10s, which are the most frequent Air Force plane over Tucson - a difference of about 400 times the physical energy, which will sound about 6 times as loud.
Typical data from Air Force Environmental Impact Statements report that the F-35 is much louder than all other fighters. Note that the A-10 is at least 15 db quieter than the quietest F-16, and at least 25 db quieter than the F-35).