## Comments on Alternative Plans in Notice of Intent, as They Affect Portal, AZ

# Background

Portal, AZ, is a thriving settlement of biologists, astronomers, artists, musicians, writers, ranchers, market gardeners and retirees. Local facilities include a library, volunteer fire department and emergency medical service with helipad, clinic, motel, guest houses and ranches, a cafe, a post office and the century-old Research Station, a branch of the American Museum of Natural History in New York. The settlement is internationally renowned as a birding destination and celebrated for the diversity of its wild life. Much of the local economy depends on attracting birders, hikers, campers, scientists and students. The Research Station is situated here because of the pristine natural environment. Apart from resident and visiting scientists, it offers classes, a conference center and accommodation for guests.

#### Alternative 2:

This proposal would include Portal within the Tombstone military operations area (MOA)<sup>1</sup> and relax current regulations regarding altitudes for subsonic and supersonic flights. I oppose it because of:

## (1) Noise

The flight floor of the Tombstone area would be lowered to 100 feet above ground level (AGL) and supersonic speed authorized at 5,000 feet AGL. In some cases (though this is not disclosed in the Notice), subsonic flights would have to be higher than 100 feet. Federal regulations<sup>2</sup> require an altitude of at least 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft, so the 100 foot floor would only apply over "open" areas. However, in a rural community such as Portal, where lots are generally four acres or much more, it would be difficult to differentiate between obstacle-fraught and open areas. Pilots might unwittingly fly below the 1,000 foot floor required for "obstacles" such as the Research Station and Visitor Center, which are situated a few miles south of the central complex of buildings.

Subsonic flights at 100 or 1,000 feet and supersonic flights at 5,000 feet AGL would be distressingly loud. Rough guides to the comparative effects of noise are provided by the Purdue Chemistry and the Yale Environmental Health and Safety departments.<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> Email to author of 2-2-2022 from by Grace Keesling, GS-13, DAF, Air Force NEPA Division (AFCEC/CZN).

<sup>&</sup>lt;sup>2</sup> Title 14 of the Code of Federal Regulations 91.119. Cited by Keesling, op.cit.

<sup>&</sup>lt;sup>3</sup> https://www.chem.purdue.edu/chemsafety/Training/PPETrain/dblevels.htm, https://ehs.yale.edu/sites/default/files/files/decibel-level-chart.pdf. The Yale table gives the noise of a jet at 100' as 140 decibels, but it's not clear whether this is 100' cruising overhead or 100' away when taking off.

According to the Purdue table a jet at 1,000 feet overhead produces 103 decibels, which is *eight times* as loud as the 70 decibels that most people find tolerable. A noise above 120 decibels can cause immediate harm to the ears<sup>4</sup>. Animals, furthermore, would be terrified by the noise this alternative would sanction.

Unfortunately, the Air Force's Notice fails to specify the number of flights which would occur in a given area. It seeks *carte blanche* to conduct the described operations. This means that one cannot predict the scale of the damage that would result—and one can only assume the worst.

I have personally experienced the roar of jets flying at low altitude over Portal—in defiance of regulations—and the sound was deafening. This happened again today, February 5<sup>th</sup>, 2022, though I was lucky enough to be inside my house at the time.

It is safe to say that the changes proposed in Alternative 2 would cause unbearable noise for local residents, would discourage paying visitors and would impede the scientific and educational work of the Research Station. We live and work here because of the quietness and the undisturbed natural surroundings.

# (2) Property damage

Low-flying aircraft could shatter glass doors and windows in Portal. The BBC reports<sup>5</sup> such damage in Tucson and the UK. For this reason supersonic training is not allowed overland in Britain for RAF and USAF fast jet crews.

# (3) Fire

The Coronado National Forest, which borders Portal and is home to many species of wild life, has suffered numerous devastating fires. Flares might cause more fires, especially if released at the lowered altitude of 2,000 feet above ground level, as evidently occurred in New Jersey. Forest fires have threatened our homes in the past and could do so again.

#### Alternative 4.

I oppose this alternative, again for reasons of noise.

The floor for supersonic flight would be 10,000 feet AGL, for subsonic flight 1,000 feet over congested areas and 100 feet elsewhere. I don't know how many decibels would be generated at 10,000 feet AGL but the noise must be considerable because the Air Force generally requires supersonic flight to be at 30,000 feet over sea level.<sup>7</sup> Regardless of

<sup>&</sup>lt;sup>4</sup> https://www.cdc.gov/nceh/hearing\_loss/what\_noises\_cause\_hearing\_loss.html

<sup>&</sup>lt;sup>5</sup> https://www.bbc.com/news/uk-england-28524705

<sup>&</sup>lt;sup>6</sup> New York Times, Thousands Flee New Jersey Wildfire Ignited by Flare from F-16, May 16, 2007, http://www.nytimes.com/2007/05/16/nyregion/16fire.html.

<sup>&</sup>lt;sup>7</sup> https://www.af.mil/About-Us/Fact-Sheets/Display/Article/104540/sonic-boom/

supersonic flight, however, the noise of aircraft at 1,000 feet over buildings in Portal or 100 feet over outlying properties and hiking trails would be intolerable.

## Alternative 3.

I support Alternative 1 (making no change) but, if change there must be, I prefer Alternative 3 because the Tombstone MOA would not be expanded to include Portal.

Alternative 3, which includes the provisions of Alternative 2 other than expansion of the northern boundary, is far from ideal. The wild life in the Chiricahua Mountains, which is an economic as well as a spiritual pillar of Portal, would still suffer from increased noise in adjacent parts of the Tombstone MOA, making Portal less of a sanctuary for residents and less of a draw for lovers of the outdoors, for scientists, and for the businesses that depend on them.

In addition to the peril posed by adjacent flying, pilots might well trespass over Portal. Since they already flout the boundaries of the Tombstone area, it's hard to believe they would not "stray" once they were allowed even more freedom than they now enjoy.

Fire, which knows no administrative boundaries, would also remain a risk. And the adjacent community of Rodeo<sup>8</sup> would suffer all the ill consequences of Alternative 2.

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<sup>&</sup>lt;sup>8</sup> Rodeo already falls within the Tombstone MOA: Keesling, *op.cit*.