Edwards Air Force Base
Environmental Restoration Program

ERP Fact Sheet

February 2006

Removal and Off-Site Treatment/Recycling – the Preferred Cleanup Method for Sites 81 and 102

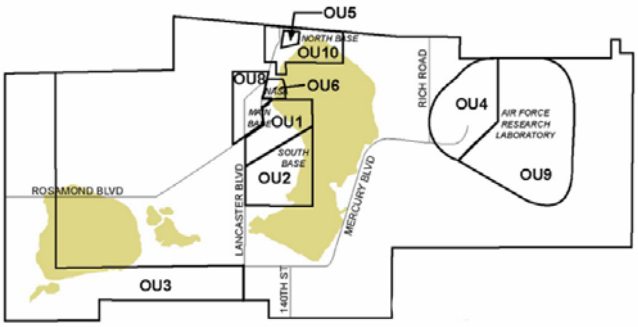
This Fact Sheet describes how Edwards AFB proposes to finish its cleanup of Sites 81 and 102, South Base.

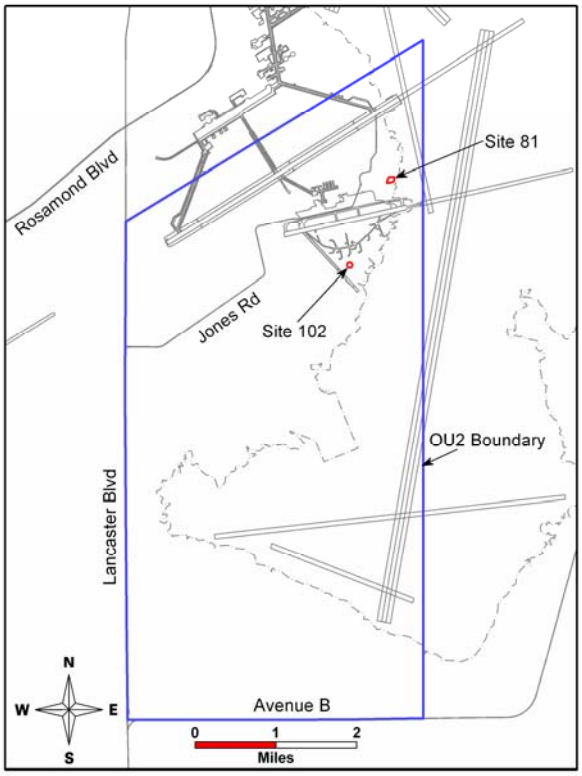
Air Force environmental engineers recommend removal and off-site treatment/recycling of skeet target fragments at Sites 81 and 102 to protect human health and the environment.

Site 81, the Old South Base Northern Skeet Range, is located in the Cantonment Area northwest of South Base Active Runway 06/24 and 600 feet southwest of Building 365. The skeet range encompasses an area of approximately three acres and was used in the 1940s and 1950s as a small arms/skeet range.

Site 102, the Old South Base Southern Skeet Range, is located south of South Base Active Runway 06/24 and 1,200 feet north of the southern end of Abandoned Runway 12/30. The site consists of a two-acre small arms/skeet range that was used in the 1940s.

Black clay fragments of broken skeet targets are visible on both range surfaces.





The top map shows the location of Operable Unit (OU) 2 within the boundary of Edwards AFB. The bottom map shows Sites 81 and 102.

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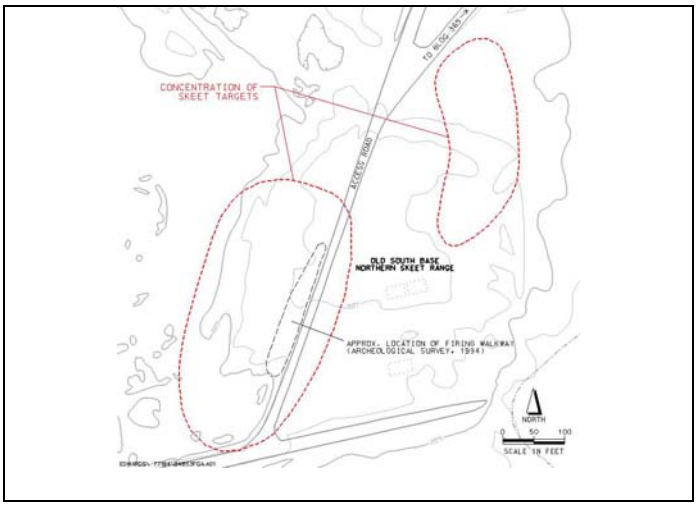
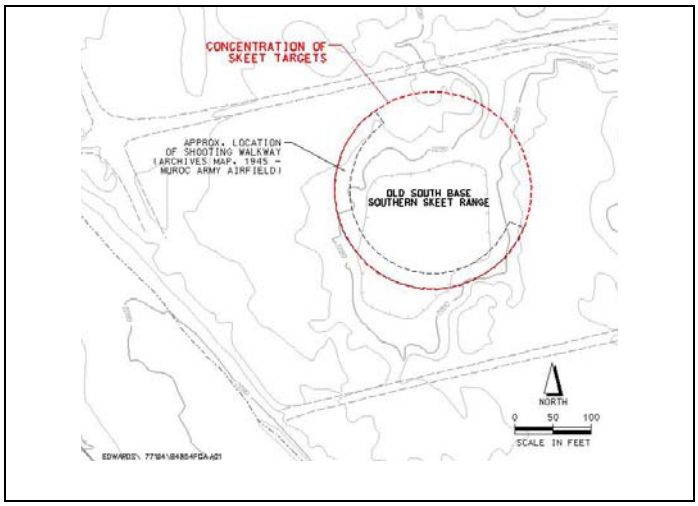


Site 81, the Old South Base Northern Skeet Range



Site 102, the Old South Base Southern Skeet Range

Environmental Management contractors collected soil samples at the sites and sieved for lead pellets to determine if the soils were contaminated from the lead shot. The skeet targets were also sampled and analyzed for polycyclic aromatic hydrocarbons (PAHs), which are chemicals formed by the incomplete burning of organic substances, such as coal or wood, and are also found in the petroleum pitch used to make skeet targets during the World War II era.

The Air Force determined that only a few scattered lead pellets remained. Apparently most of the pellets were removed and the lead recycled while the ranges were in operation. Also, laboratory analyses indicated that the soils were not contaminated with lead or other metals. A detection of arsenic in the soil is only slightly above the calculated background concentration for OU2 and is likely to be naturally occurring. However, PAHs were detected in the skeet target shards. The volume of skeet target shards remaining at Sites 81 and 102 is estimated at 2,400 and 1,600 cubic yards, respectively.

Technical experts completed ecological risk assessments at Sites 81 and 102. Lead was the only contaminant present in the soil at Site 81 that posed a potential risk to wildlife and habitat; however, the risk was considered minimal because lead was detected above the calculated background concentration for OU2 in only a single sampling location. No risk to plants or animals, including the desert tortoise, was identified at Site 102. However, though not part of the formal risk assessment, PAHs were detected in the skeet target shards and could be a potential risk to wildlife.

The Operable Unit (OU) 2 Proposed Plan offers three alternatives to the preferred alternative – No Action, Removal and On-Base Waste Disposal of Skeet Target Fragments (Consolidation at Site 29), and Removal and Off-site Treatment and Recycling of the Skeet Target Fragments.

The No Action alternative would not cost anything, but there would be no protection of people or animals from skeet target fragments.

The Removal and On-Base Waste Disposal of Skeet Target Fragments (Consolidation at Site 29) alternative includes the removal of the top six inches of soil containing sheet target fragments. The soil would then be transported to Site 29 for consolidation with other waste. The estimated cost for this alternative is $0.2 million. However, this does not include the cost for implementing a landfill cover at Site 29.

The preferred alternative, Removal and Off-site Treatment and Recycling of the Skeet Target Fragments includes the manual removal of visible skeet target fragments from Sites 81 and 102, and subsequent treatment or recycling at an off-base facility. This alternative would cost an estimated $0.26 million. There would be no further costs because the sites would be returned to unrestricted use.