Final version

Form No. 10-306 (Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR FEDERAL PROPERTIES

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SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC: MUROC DRY LAKE

AND/OR COMMON: ROGERS DRY LAKE

2 LOCATION

STREET & NUMBER: EDWARDS AIR FORCE BASE — NOT FOR PUBLICATION

CITY, TOWN — CONGRESSIONAL DISTRICT — VICINITY OF

STATE	CODE	COUNTY	CODE
CALIFORNIA	06	KERN	029

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
__DISTRICT	X PUBLIC	__OCCUPIED	__AGRICULTURE	__MUSEUM
__BUILDING(S)	__PRIVATE	__UNOCCUPIED	__COMMERCIAL	__PARK
__STRUCTURE	__BOTH	__WORK IN PROGRESS	__EDUCATIONAL	__PRIVATE RESIDENCE
X SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	__ENTERTAINMENT	__RELIGIOUS
__OBJECT	__IN PROCESS	X YES: RESTRICTED	X GOVERNMENT	__SCIENTIFIC
	__BEING CONSIDERED	__YES: UNRESTRICTED	__INDUSTRIAL	__TRANSPORTATION
		__NO	X MILITARY	X OTHER: Aerospace Research & Development

4 AGENCY

REGIONAL HEADQUARTERS: *(If applicable)*
UNITED STATES AIR FORCE
STREET & NUMBER
EDWARDS AIR FORCE BASE AFFTC/XR, DEER, HQ
CITY, TOWN — STATE
NONE — VICINITY OF

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.: UNITED STATES AIR FORCE/LEEV
STREET & NUMBER
BUILDING 516, BOLLING AIR FORCE BASE
CITY, TOWN — STATE
WASHINGTON D.C.

6 REPRESENTATION IN EXISTING SURVEYS

TITLE
NONE
DATE
__FEDERAL __STATE __COUNTY __LOCAL
DEPOSITORY FOR SURVEY RECORDS
CITY, TOWN — STATE

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
X EXCELLENT	__ DETERIORATED	__ UNALTERED	X ORIGINAL SITE
__ GOOD	__ RUINS	X ALTERED	__ MOVED DATE_____
__ FAIR	__ UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

Rogers Dry Lake is within the boundaries of Edwards Air Foce Base in California, approximately 100 miles northeast of Los Angeles. Rogers Dry Lake is part of the Antelope Valley region of the Mojave Desert. Antelope Valley is bounded by the Soledad Mountains, the Sierra Pelona ranges of the San Gabriel Mountains, the Long Buttes, and the Tehachapi Mountains. The lake forms the lowpoint of the valley which ranges in altitude from 2,300 to 3,000 feet above sea level.

Rogers Dry Lake encompasses sixty-five square miles and is shaped roughly like a lopsided figure 8, 12 1/2 miles long and 5 miles wide. It is the pluvial lake that was formed during the late Pleistocene Era about 2.5 million years ago. The lake is naturally flat and its surface is unusually hard and can support up to 250 pounds per square inch of pressure enabling even the heaviest aircraft to land and take off from the lake bed. The lake is dry for most of the year except for brief occasions when rainfall fills the lake bottom to a depth of a few inches.

Rogers Dry Lake has 60 miles of marked and maintained runways which are 300 feet wide. Its broad expanse of hardened clay surface forms the largest natural landing field in the world.

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
_PREHISTORIC	_ARCHEOLOGY-PREHISTORIC	_COMMUNITY PLANNING	_LANDSCAPE ARCHITECTURE	_RELIGION	
_1400-1499	_ARCHEOLOGY-HISTORIC	_CONSERVATION	_LAW	_SCIENCE	
_1500-1599	_AGRICULTURE	_ECONOMICS	_LITERATURE	_SCULPTURE	
_1600-1699	_ARCHITECTURE	_EDUCATION	X MILITARY	_SOCIAL/HUMANITARIAN	
_1700-1799	_ART	_ENGINEERING	_MUSIC	_THEATER	
_1800-1899	_COMMERCE	_EXPLORATION/SETTLEMENT	_PHILOSOPHY	_TRANSPORTATION	
X 1900-	_COMMUNICATIONS	_INDUSTRY	_POLITICS/GOVERNMENT	X OTHER (SPECIFY)	
		_INVENTION		Aeronautical Research & Space Exploration	

SPECIFIC DATES 1933 - Present BUILDER/ARCHITECT N/A

STATEMENT OF SIGNIFICANCE

Rogers Dry Lake is the primary resource associated with, and responsible for, the establishment of Edwards Air Force Base and the Dryden Flight Research Facility. Edwards AFB is the world's premier flight testing and flight research center. Both Edwards and Dryden have had a profound impact on the development of aerospace technology and military security. It is precisely the presence of the natural attributes of clean air, isolated location, ideal weather, variable terrain, and the large expanse of dry lakebeds that first attracted the Army to the Rogers Dry Lake in 1933. These natural assets enabled the military and later the National Advisory Committee for Aeronautics (NACA) and the National Aeronautics and Space Administration (NASA) to flight test aircraft that were on the cutting edge in aviation and aerospace technology. Starting in 1947 with the flight of the Bell XS-1, the first plane to break the sound barrier, to the landing of the Space Shuttle Columbia in 1981, Rogers Dry Lake has been the scene of the most important developments in the history of aviation.

General History

Rogers Dry Lake area was a watering stop for the Atchison, Topeka & Santa Fe Railroad until 1910 when the Corum family settled on the west central shoreline of the lakebed. Clifford Corum, his wife Effie, and his brother Ralph were homesteaders and were among the earliest known settlers of this region. Seeking to attract others to the area they built a combination store and post office. Effie drove the family buggy across the desert seeking the necessary signatures for a petition that would officially give the Corum name to their post office. When the Postal Department rejected the name because of its similarity to another California town, the Corums persisted in immortalizing their name. They decided to reverse the letters in Corum and the small settlement of Muroc was born. Muroc no longer exists and any remains lie beneath runways.

Muroc area was first used by the military in 1933 when a small advance party from March Field in Riverside came to design and maintain a bombing range for the Army Corps. The lakebed vicinity was found ideal for flight and four years later the entire Air Corps was performing bombing and gunnery maneuvers here.

During World War II, the south end of the lake was used for training P-38 Lightning fighter pilots, and B-24 Liberator and B-25 Mitchell bomber crews.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

See Continuation Sheet

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY ±7,680 Edwards and Rogers Lake North 7 1/2' USGS Quad Maps

UTM REFERENCES E. 11 421100E 3865110N

	ZONE	EASTING	NORTHING
A	11	427560	3869120
B	11	422720	3872750
C	11	419850	3870050
D	11	419420	3866620

VERBAL BOUNDARY DESCRIPTION

The portion of Rogers Dry Lake north of the SW to NE fly-by-line as outlined on the attached USGS Quadrangle Maps.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
None			

11 FORM PREPARED BY

NAME / TITLE: Mr. Robert Johnstone — DATE: 16 JAN 86

ORGANIZATION: AFFTC/XRX

STREET & NUMBER: Edwards Air Force Base — TELEPHONE

CITY OR TOWN: California 93523 — STATE

12 CERTIFICATION OF NOMINATION

STATE HISTORIC PRESERVATION OFFICER RECOMMENDATION

YES____ NO____ NONE____

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

In compliance with Executive Order 11593, I hereby nominate this property to the National Register, certifying that the State Historic Preservation Officer has been allowed 90 days in which to present the nomination to the State Review Board and to evaluate its significance. The evaluated level of significance is __X__ National ____State ____Local.

FEDERAL REPRESENTATIVE SIGNATURE GARY D. VEST

TITLE Deputy for Environment and Safety DATE 27 Jan 86

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST: DATE

KEEPER OF THE NATIONAL REGISTER

GPO 899-214

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Bombing practice targets included a realistic 650-foot replica of a Japanese Navy heavy crusier, dubbed the "Muroc-Maru." Pilots and bombardiers used the "ship" for strafing, identificaiton, and skip bombing practice. The Muroc-Maru passed into legend in 1950 when it was removed as a flight hazard by Army engineers, who first had to rid the hull of unexploded bombs.

In February 1942, Col Benjamin W. Chidlaw and Lt Col Ralph P. Swofford of the Materiel Center at Wright Field, Ohio, on an extended tour of the western United States, chose Muroc Dry Lake as the ideal location to test the then secret Bell-built XP-59A jet airplane. The XP-59A made its first flight October 1, 1942.

As tests of the XP-59A progressed, it became apparent that the location was ideal for testing new aircraft. In addition to a climate assuring 350 days a year flying weather, the dry lake was a ready-made emergency landing field for experimental aircraft.

Later, negotiations with the Muroc Bombing and Gunnery Range commanding officer, Maj Glen L. Arbogast, resulted in assignment of a portion of Muroc Dry Lake north of the Santa Fe Railroad for exclusive use of the Materiel Center personnel who had been directed to proceed to Muroc, California, to take charge of the "Materiel Center Flight Test Sits." In September 1942, America's first turbojet arrived at Muroc by rail.

Since 1942, Edwards Air Force Base (formally known as Muroc Air Force Base) and its tenant, the NASA Ames-Dryden Flight Research Facility (formerly the NASA Flight Research Center), have played a significant role in advancing the capabilities of aerospace technology. Edwards played a major role in the turbojet revolution, the supersonic breakthrough (beginning with flight testing of the Bell XS-1 in 1946-1947 and continuing with its "X-series" successors), and hypersonic research (research at speeds above five times that of the speed of sound, known as Mach 5) using the X-15 rocket research aircraft.

Edwards has also served as a support facility for flight operations of the NASA Space Shuttle Orbiter. Some of the participants in Edwards' flight testing programs eventually played major roles in the American manned spacecraft program, notably NACA-NASA administrator Dr Walter Williams, and test pilot-astronauts Donald Slayton, Michael Collins, Neil Armstrong, and Joseph Engle.

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Lakebed Runways 18 and 23 are nominated on the basis of their significance to the X-15 research aircraft program and the NASA Space Shuttle program. The X-15, a hypersonic research vehicle that completed its first flight in 1959, flew for nearly a decade at Edwards, typically landing on Lakebed Runway 18. This program (one of the lengthiest ever conducted at Edwards, as well as its most challenging and ambitious) contributed a scientific data base significant to the development of subsequent hypersonic winged vehicles capable of operating in the upper atmoshere on the fringes of space.

The NASA Space Shuttles, launched from the Kennedy Space Center, have typically utilized Lakebed Runway 23 as a landing strip. These two runways, then, properly offer recognition of the importance of Edwards in the history of aeronautics (via the X-15 and earlier rocket research aircraft that have landed on the dry lakebed) and the history of astronautics (via the Space Shuttle of the present day).

The natural resource of Rogers Dry Lake has made possible the successful development and testing of generations of American aircraft leading to the Space Shuttle. Because of this association with the history of American aviation, Rogers Dry Lake is uniquely qualified for designation as a National Historic Landmark.

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Footnotes

1. The descriptive material for the general history of this section has been taken from Antelope Valley Salutes Edwards AFB (Riverside, Ca.: Armed Services Press, 1982), pp. 37-9.

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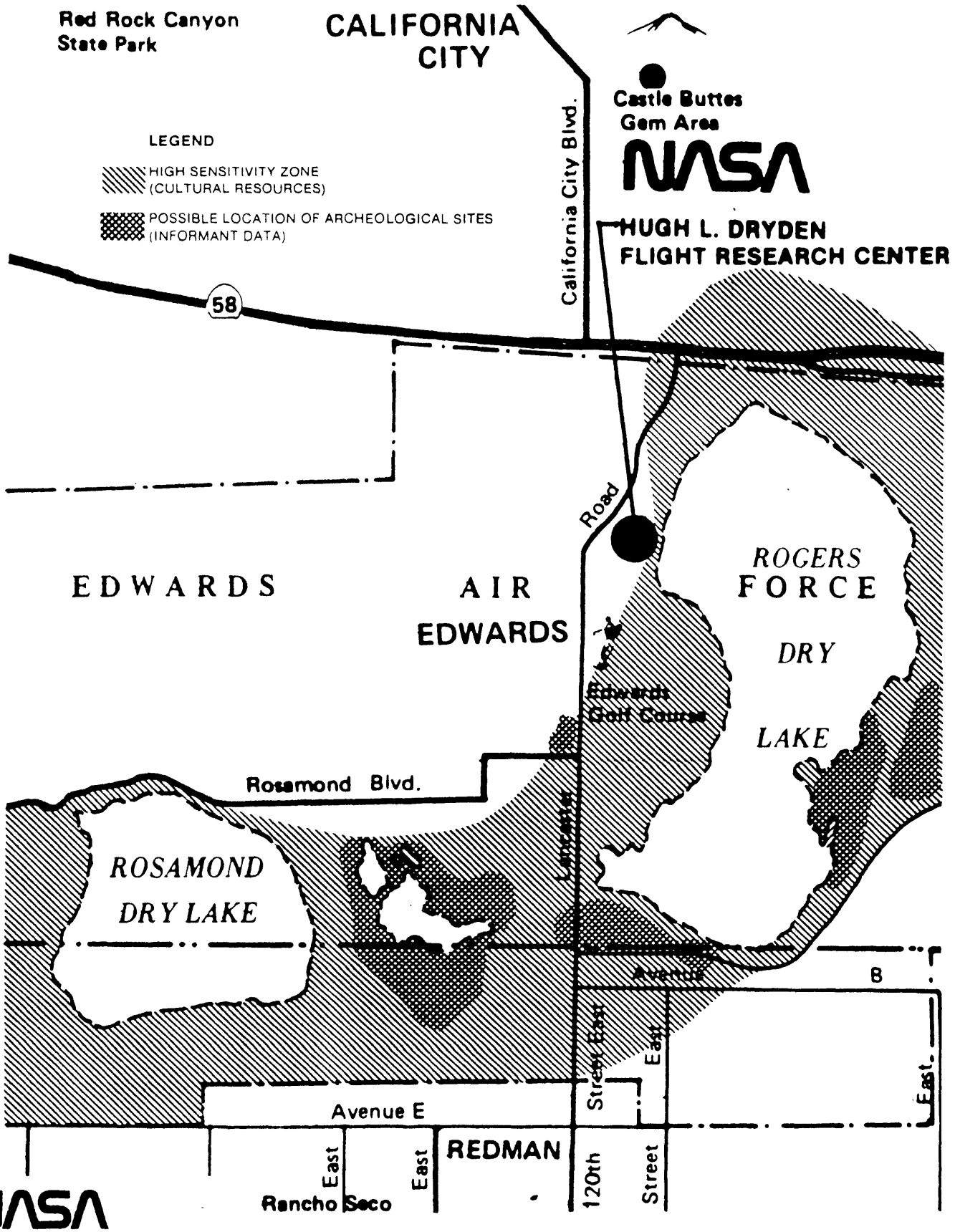

NASA

National Aeronautics and
Space Administration

Hugh L. Dryden Flight Research Center
P.O. Box 273
Edwards, California 93523
AC 805 258-3311

FIGURE 13-1
Archeological Resources