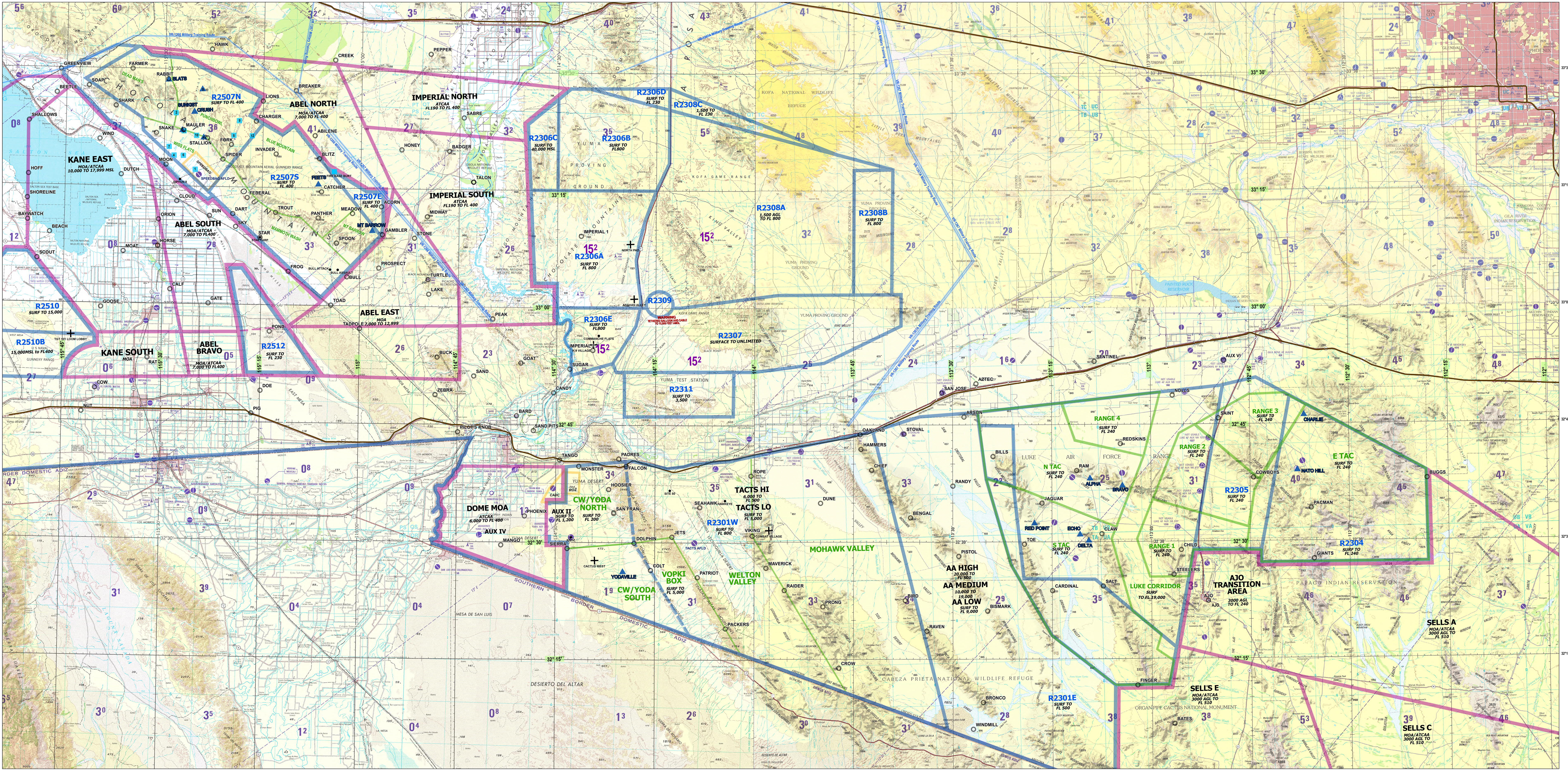

115°45'W
115°30'W
115°15'W
115°0'W
114°45'W
114°30'W
114°15'W
114°0'W
113°45'W
113°30'W
113°15'W
113°0'W
112°45'W
112°30'W
112°15'W
112°0'W
33°30'N
33°15'N
33°0'N
32°45'N
32°30'N
32°15'N
R2507N
SURF TO FL 400
R2507S
SURF TO FL 400
R2507E
SURF TO FL 400
KANE EAST
MOA/ATCAA
10,000 TO 17,999 MSL
ABEL NORTH
MOA/ATCAA
7,000 TO FL 400
ABEL SOUTH
MOA/ATCAA
7,000 TO FL400
ABEL EAST
MOA
TADPOLE 7,000 TO 12,999
ABEL BRAVO
MOA/ATCAA
7,000 TO FL400
KANE SOUTH
MOA
IMPERIAL NORTH
ATCAA
FL190 TO FL 400
IMPERIAL SOUTH
ATCAA
FL190 TO FL 400
R2510
SURF TO 15,000
R2510B
U S NAVAL
15,000MSL to FL400
GUNNERY RANGE
TGT 101 LOOM LOBBY
R2512
SURF TO FL 230
CHOCOLATE MOUNTAIN AERIAL GUNNERY RANGE (Naval)
SPEEDBAG AFLD
FIRE BASE BURT
R2306D
SURF TO FL 230
R2308C
1,500 TO FL 230
R2306C
SURF TO 40,000 MSL
R2306B
SURF TO FL800
R2306A
SURF TO FL 800
R2306E
SURF TO FL800
R2309
WARNING
TETHERED BALLOON AND CABLE TO 15,000 FEET AMSL
R2307
SURFACE TO UNLIMITED
R2308A
1,500 AGL TO FL 800
R2308B
SURF TO FL 800
R2311
SURF TO 3,500
YUMA TEST STATION
YUMA PROVING GROUND
KOFA NATIONAL WILDLIFE REFUGE
KOFA GAME RANGE
VR-1266 Military Training Route
VR-1267 Military Training Route
VR-1267A Military Training Route
DOME MOA
ATCAA
6,000 TO FL 400
AUX II
SURF TO FL 1,200
AUX IV
CW/YODA NORTH
SURF TO FL 200
CW/YODA SOUTH
VOPKI BOX
SURF TO FL 5,000
R2301W
SURF TO FL 800
TACTS HI
6,000 TO FL 500
TACTS LO
SURF TO FL 5,000
WELTON VALLEY
MOHAWK VALLEY
AA HIGH
20,000 TO FL 500
AA MEDIUM
10,000 TO 19,000
AA LOW
SURF TO FL 9,000
R2301E
SURF TO FL 500
LUKE AIR FORCE RANGE
RANGE 1
SURF TO FL 240
RANGE 2
SURF TO FL 240
RANGE 3
SURF TO FL 240
RANGE 4
SURF TO FL 240
N TAC
SURF TO FL 240
S TAC
SURF TO FL 240
E TAC
SURF TO FL 240
R2305
SURF TO FL 240
R2304
SURF TO FL 240
LUKE CORRIDOR
SURF TO FL 19,000
AJO TRANSITION AREA
3000 AGL TO FL 240
SELLS A
MOA/ATCAA
3000 AGL TO FL 510
SELLS E
MOA/ATCAA
3000 AGL TO FL 510
SELLS C
MOA/ATCAA
3000 AGL TO FL 510
ORGAN PIPE CACTUS NATIONAL MONUMENT
PAPAGO INDIAN RESERVATION
CABEZA PRIETA NATIONAL WILDLIFE REFUGE
SALTON SEA
PHOENIX
GLENDALE
SOUTHERN BORDER DOMESTIC ADIZ
DESIERTO DEL ALTAR
MESA DE SAN LUIS

POPULATED PLACES

Over 100,000	PHOENIX
50,000 to 100,000	OMAHA
10,000 to 50,000	Dodge City
2,000 to 10,000	Aspen

ROADS

Dual Highway	4 LANES DUAL
All weather, hard surface	
More than two lanes wide	4 LANES
Two lanes wide	
One lane wide	
All weather, loose or light surface	
More than two lanes wide	3 LANES
Two lanes wide	
One lane wide	
Fair or dry weather, loose surface	
Cart track	
Footpath, trail	
Route marker	50

RAILROADS
Normal gauge, single track 1.44m (4'8½)

BOUNDARIES
International

VEGETATION
Woods

HYDROGRAPHY
Land subject to inundation
Rice paddy; Marsh or swamp
Perennial stream; Canal; Dam

OTHER FEATURES
Mine
Building; School; Church
Well; Tank
Pipeline
Bridge; Culvert

TERRAIN ELEVATIONS

HIGHEST KNOWN elevation is 4877 feet at the following coordinates:
Geographic.........33°22' N, 114°05' W
± following elevation value indicates accuracy is not within 100 feet

AERODROMES (Military or Civil)
Runway pattern known — EDNA/50/s 725
EDNA–Name
50–Length of the longest runway to nearest hundreds of feet
s–Soft or unimproved surface
u–Unknown surface
725–Elevation
Runway pattern unknown
HELIPORT/HELIPAD

RADIO FACILITIES
VHF OMNI RANGE (VOR) — VOR with DME
VORTAC — Other Facilities
TACAN

CONTROLLED AIRSPACE
ADIZ — CONUS

VISUAL AIDS AND OBSTRUCTIONS
Obstruction — 1108 (259)
1108–Elevation of obstruction top, above sea level.
(259)–Elevation of obstruction top, above ground level.
Group obstruction
Radio facility obstruction
Power transmission line
Visual ground sign
Aero light, Marine light

Sectors depicted in R-2507 N/S and R-2301 W are for Marine Aviation Weapons and Tactics Squadron ONE (MAWTS-1) use only.

NOTE: "Altitudes reflected on this map are those normally requested and supported by Yuma Range Management and the FAA, and are not necessarily the published effective altitudes."

TAC RANGE BOUNDARY	MOA BOUNDARY	RESTRICTED AREA BOUNDARY	SECTOR BOUNDARY	RANGE BOUNDARY
OBSERVATION POINT ▲	GUN POSITION ■	CONTROL POINT ○	GROUND LOCATION •	TARGET +
		VICTOR ROUTE		

MAP SHEETS:
1501 AIR NI 11-9 EDITION 3
1501 AIR NI 11-12 EDITION 4
1501 AIR NI 12-7 EDITION 6
1501 AIR NI 12-10 EDITION 4

WTI OPAREA SPECIAL MAP

Edition 003 - Revisions: 8/2020

JOINT OPERATIONS GRAPHIC (AIR)

SCALE 1:250,000
Statute Miles 5 0 5 10 15 20
Kilometers 5 0 5 10 15 20 25 30
Nautical Miles 5 0 5 10 15

CONTOUR INTERVAL APPROXIMATELY 400 FEET
WITH SUPPLEMENTARY CONTOURS AT APPROXIMATELY 200 FEET

BLUE NUMBERED LINES INDICATE THE 10,000 METER MILITARY GRID REFERENCE SYSTEM ZONE 11 & 12, Clarke 1866 Spheroid & Geodetic Reference System 1980 Ellipsoid.

This map was prepared on the
National Geospatial-Intelligence Agency (NGA) Remote Replication System (RRS),
from best available sources.
Additional information was provided by MAWTS-1, S-2.

REFER ALL CORRECTIONS, ADDITIONS AND COMMENTS TO THE NGA ENTERPRISE SERVICE DESK VIA PHONE: (800)455-0899/ DSN: 547-5555; E-MAIL: ENTERPRISESERVICECENTER@NGA.MIL (UNCLASSIFIED); ESC@NSCN.NGA.SMIL.MIL (SIPRNET) OR WRITE TO: DIRECTOR, NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY, ATTN: ESC, MAIL STOP E36-ESC, 7500 GEOINT DRIVE, SPRINGFIELD, VA 22150-7500

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ELEVATIONS IN FEET

DMA IS UPDATING THE MILITARY GRID REFERENCE SYSTEM FROM NAD 27 (CLARKE 1866 ELLIPSOID) TO NAD 83 (GEODETIC REFERENCE SYSTEM 1980 ELLIPSOID). UNTIL ALL ADJACENT AND OVERLAPPING SHEETS ARE CONVERTED, THE NAD 83 100,000 METER GRID SQUARE IDENTIFIERS ARE DEPICTED IN BLUE AND THE NAD 27 IDENTIFIERS IN PURPLE.

COORDINATE CONVERSION NAD 83 TO NAD 27
Grid: Add 65m.E., Subtract 200m.N.
Geographic: Subtract 2.7" Long., Subtract 0.2" Lat.

SAMPLE 10,000 METER GRID SQUARE
100,000m SQUARE IDENTIFICATION
See Body of Map
GRID ZONE DESIGNATION
12S

SAMPLE 1,000 METER REFERENCE
1. Read letters identifying the 100,000 meter square in which the point lies: AB
2. Read large number labeling the VERTICAL grid line left of point: 1
Estimate tenths (1,000 meters) from grid line to point: 2
3. Read large number labeling the HORIZONTAL grid line below point: 3
Estimate tenths (1,000 meters) from grid line to point: 4
Example: AB1234
WHEN REPORTING OUTSIDE THE GRID ZONE DESIGNATION AREA IN WHICH THE POINT LIES, PREFIX THE GRID ZONE DESIGNATION.
Example: 12SAB1234

NOTES
Powerlines are shown except within populated place tints. Other obstructions are shown if they are 150 feet or more above ground level. See caution note.
On this graphic a lane is generally considered as being 2.5 meters (8 feet) in width.
Boundary representation is not necessarily authoritative.

ELEVATION TINTS

FEET
9845
5905
2625
660
330
0

GEOREF
BASIC 15° QUADRANGLE
EJ
33° 32° EC FC GC HC
115°30' 115° 114° 113° 112°

CONVERSION OF ELEVATIONS

FEET	METERS	FEET	METERS
1000	305	10000	3048
900	274	9000	2743
800	244	8000	2438
700	213	7000	2134
600	183	6000	1829
500	152	5000	1524
400	122	4000	1219
300	91	3000	914
200	61	2000	610
150	46	1500	457
100	31	1000	305

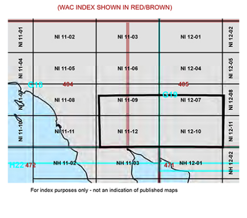
CAUTION
Vertical obstructions, including powerlines, have been extracted from the most reliable sources available. However, there is no assurance that all are shown, or that their locations or heights are exact.

CAUTION
AIR INFORMATION CURRENT THROUGH
21 JANUARY 1981
Consult NOTAMS and Flight Information Publications for the latest air information: the DOD Aeronautical Chart Updating Manual or MOD (U.K.) Aeronautical Chart Amendment document, for other chart revision information.

LINES OF EQUAL MAGNETIC VARIATION FOR 1990
(Annual rate of change, 2' decrease.)

ATTENTION
THIS CHART CONTAINS MAXIMUM ELEVATION FIGURES (MEF)
The Maximum Elevation Figures shown in quadrangles bounded by ticked lines of latitude and longitude are represented in THOUSANDS and HUNDREDS of feet above mean sea level. The MEF is based on information available concerning the highest known feature in each quadrangle, including terrain and obstructions (trees, towers, antennas, etc.). In areas of extensive unreliable relief, the MEF is shown by a note spaced across the area.
EXAMPLE: 12,500 feet .... 12^5

LOCATION DIAGRAM
(ONC INDEX SHOWN IN BLUE)
(WAC INDEX SHOWN IN RED/BROWN)



NI 11-01
NI 11-02
NI 11-03
NI 12-01
NI 12-02
NI 11-04
NI 11-05
NI 11-06
NI 12-04
NI 12-05
NI 11-07
NI 11-08
NI 11-09
NI 12-07
NI 12-08
NI 11-10
NI 11-11
NI 11-12
NI 12-10
NI 12-11
NH 11-02
NH 11-03
NH 12-01
NH 12-02
G18
G19
404
405
472
473
H22

For index purposes only - not an indication of published maps