STANDARDS RELATED DOCUMENT

SRD-4616

CAPABILITIES OF NATIONAL/MILITARY LABORATORIES OF NATO AND PARTNER NATIONS

Edition A Version 1
AUGUST 2020



NORTH ATLANTIC TREATY ORGANIZATION

Published by the NATO STANDARDIZATION OFFICE (NSO)
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NORTH ATLANTIC TREATY ORGANIZATION (NATO) NATO STANDARDIZATION OFFICE (NSO) NATO LETTER OF PROMULGATION

28 August 2020

- 1. The enclosed Standards Related Document, SRD-4616, Edition A, Version 1, CAPABILITIES OF NATIONAL/MILITARY LABORATORIES OF NATO AND PARTNER NATIONS, which has been approved in conjunction with AFLP-3149, AFLP-4714 and AFLP-7017 by the nations in the PETROLEUM COMMITTEE, is promulgated herewith.
- 2. SRD-4616, Edition A, Version 1 is effective upon receipt and supersedes AFLP-8, Edition 2, which shall be destroyed in accordance with the local procedure for the destruction of documents.
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- 4. This publication shall be handled in accordance with C-M(2002)60.

Dieter Sehmaglowskin Deputy Director NSO

Branch Head P&C

Zoltán GULYÁS

Brigadier General, HUNAF

Director, NATO Standardization Office

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Edition A Version 1

SECTION 1 GENERAL

- 0101. SRD-4616 Edition A, Version 1 provides information on the capabilities of National/Military Laboratories of the NATO and Partner nations.
- 0102. Additional Laboratory resources can also be found in the latest version of STANAG 7017/AFLP-7017 Spectrometric Analysis of Aircraft Engine Lubricants.
- 0103. SRD-4616 is further linked to STANAG 3149/AFLP-3149 Minimum Quality Surveillance for Fuels and STANAG 4714/AFLP-4714 Minimum Quality Surveillance for Lubricants and Associated Products

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SECTION 2 SUMMARY OF LABORATORY TESTING CAPABILITIES

							Cross-	
NATION	Location	Jet	Diesel	Gasoline	Lubricant	Accreditation	Check	Deployable
Belgium	Peutie	A (-)	A (-)	A (-)	YES	YES	YES	YES
Bulgaria	Sofia	B2 (-)	B2	B1 (-)	NO	NO	NO	NO
Canada	Ottawa	Α	Α	Α	YES	In Progress	YES	NO
	Lasalle	NA	NA	NA	YES	YES	YES	NO
Czech Rep.	Prague	Α	Α	Α	YES	NO	YES	YES
Denmark	Vaerloese	Α	Α	Α	YES	NO	YES	NO
France	Marseille	Α	Α	Α	YES	YES	YES	YES
Germany	Erding	Α	Α	B2	YES	YES	YES	YES
Greece	Elefsina	B2(-)	B1(-)	B1(-)	YES	NO	NO	NO
	Eleftherio	B2	B2	B2	NO	NO	YES	YES
	Souda	B1(-)	B1(-)	B1(-)	NO	NO	NO	NO
	Andravida	B1	B1(-)	B1(-)	NO	NO	NO	NO
	Skaramagas	B2(-)	B2(-)	С	YES	NO	NO	NO
	Souda	B2(+)	B2(+)	B2(-)	NO	NO	NO	NO
Hungary	Pusztavacs	B1	B1	B1	NO	YES	YES	YES
Italy	Fiumicino	Α	NA	NA	NO	YES	YES	YES
-	Bari - Mungivacca	Α	NA	NA	YES	NO	YES	NO
	Verona- Villafranca	Α	NA	NA	NO	IN PROGRESS	YES	YES
	Cagliari - Villasor	A(+)	NA	NA	NO	NO	YES	NO
	Trapani	Α	NA	NA	NO	NO	YES	NO

NATION	Location	Jet	Diesel	Gasoline	Lubricant	Accreditation	Cross- Check	Deployable
Netherlands	Den Helder	B2(-)	B2	NA	YES	YES	YES	NO
Norway	Kjeller	A(-)	B2(-)	NA	NO	YES	YES	NO
Poland	Debogorze	B2	B2	B2	YES	YES	YES	NO
	Wroclaw	NA	Α	B2	YES	YES	YES	NO
	Bydgoszcz	Α	Α	Α	YES	YES	YES	NO
	Poznan	Α	Α	B2	YES	YES	YES	NO
Portugal	Lisboa	B1	B1	B1	YES	YES	NO	NO
-	Almada	NA	B2	NA	YES	NO	NO	NO
Slovakia	Žilina	Α	Α	Α	YES	YES	YES	NO
Spain	Madrid	B1(±)	B1(+)	B1	YES	YES	YES	NO
	Colmenar Viejo	B2	NA	NA	NO	NO	NO	NO
	Almagro	С	NA	NA	NO	NO	NO	NO
	Bétera	С	NA	NA	NO	NO	NO	NO
	Agoncillo	С	NA	NA	NO	NO	NO	NO
	Dos Hermanas	С	NA	NA	NO	NO	NO	NO
	Melilla	С	NA	NA	NO	NO	NO	NO
	La Laguna	С	NA	NA	NO	NO	NO	NO
	San Gregorio	С	NA	NA	NO	NO	NO	NO
	Cartagena	B1(-)	B1(-)	B1(-)	YES	NO	NO	NO
	El Ferrol	B1	B1	B1	YES	NO	NO	NO
	Las Palmas	NA	B1	NA	YES	NO	NO	NO
	San Fernando	B2 (-)	B2(-)	B2(-)	YES	NO	YES	NO

NATION	Location	Jet	Diesel	Gasoline	Lubricant	Accreditation	Cross- Check	Deployable
Spain	Albacete	B1	B2(-)	B2	NO	NO	YES	NO
I	Alcantarilla	B1	B2(-)	B2	NO	NO	YES	NO
	Armilla	B1	B2(-)	B2	NO	NO	YES	NO
	Cuatro Vientos	B1(+)	B2(±)	B2	YES	NO	YES	YES
	Las Palmas –							
	Gando	B1	B2(-)	B2	NO	NO	YES	NO
	Getafe	B1	B2(-)	B2	NO	NO	YES	NO
	San Bartolomé	B1	B2(-)	B2	NO	NO	YES	NO
	Virgen del Camino	B1	B2(-)	B2	NO	NO	YES	NO
	Málaga	B1	B2(-)	B2	NO	NO	YES	NO
	Salamanca	B1	B2(-)	B2	NO	NO	YES	NO
	Morón de la							
	Frontera	B1	B2(-)	B2	NO	NO	YES	NO
	Pollensa	B1(-)	B2(-)	B2(-)	NO	NO	NO	NO
	San Javier	B1	B2(-)	B2	NO	NO	YES	NO
	Palma de Mallorca	B1	B2(-)	B2	NO	NO	YES	NO
	Talavera la Real	B1	B2(-)	B2	NO	NO	YES	NO
	Torrejón de Ardoz	B1	B2(-)	B2	NO	NO	YES	NO
	Villanubla	B1	B2(-)	B2	NO	NO	YES	NO
	Zaragoza	B1	B2(-)	B2	NO	NO	YES	NO
	Torrejón de Ardoz	Α	A(-)	Α	YES	NO	YES	NO
Switzerland	Schlieren	A(+)	A(-)	A(-)	YES	YES	YES	NO
Turkey	Ankara	B2	B2	B2	YES	YES	YES	NO

NATION	Location	Jet	Diesel	Gasoline	Lubricant	Accreditation	Cross- Check	Deployable
United								. ,
Kingdom	Westfalen	B2	B2	B2	YES	NO	NO	YES
	Farnborough	Α	Α	A(-)	YES	NO	YES	NO
United States	AFRL WPAFB, OH	Α	B1	B2	YES	NO	NO	NO
	AFPA WPAFB,OH	Α	B2(-)	B2(-)	YES	NO	YES	YES
	AFPA Okinawa, JA	Α	B2(-)	B2(-)	NO	NO	YES	NO
	Mildenhall, UK	Α	B2(-)	B2(-)	NO	NO	YES	NO
	USMC Multip. Sites	B1	B1	C	NO	NO	NO	YES
	Ft Richardson AK	B2	B2(-)	B2(-)	NO	NO	YES	NO
	Kaiserlautern GE	Α	B2(-)	B2(-)	YES	NO	YES	NO
	Jacksonville, FL	B1	B1	NA	NO	NO	YES	NO
	Norfolk, VA	B2	B2	B1	YES	YES	YES	NO
	Patuxent River MD	Α	Α	NA	YES	NO	YES	NO
	Pearl Harbor, HI	B2	B2	B1(-)	YES	NO	YES	NO
	Puget Sound, WA	B2	B2	NA	YES	NO	YES	NO
	San Diego, CA	B2	B2	B1	YES	NO	YES	NO
	Rota Spain	B2	B2(-)	С	NO	NO	YES	NO
	Hachinohe, JA	B2	NA	NA	NO	NO	YES	NO
	Hakozaki, JA	A(-)	A(-)	B2(+)	YES	NO	YES	NO
	Sasebo, JA	B2	B2	B2	YES	NO	YES	NO

							Cross-	
NATION	Location	Jet	Diesel	Gasoline	Lubricant	Accreditation	Check	Deployable
United States	Guam	C(+)	C(+)	NA	NO	NO	YES	NO
	Diego Garcia	B2	B2	B2	YES	NO	YES	NO
	DLA Okinawa, JA	B2	B2	B2	YES	NO	YES	NO
	New Cumberland	B2	B2	B2	YES	NO	YES	NO
	FT Lee	B2	B2	B2	NO	NO	YES	NO
	Aberdeen	B1	B1	B1	YES	YES	YES	NO
	FT Hood	B1	B1	B1	NO	NO	YES	NO
	FT Rucker	B1	B1	B1	NO	NO	YES	NO
	Camp Leatherneck	B2(-)	B2	B2	NO	NO	YES	NO
	Tarin Kowt	B2(-)	B2	B2	NO	NO	YES	NO
	Pyeongtaek	Α	B2	B2	NO	NO	YES	NO
NATO	France (CEPS)	Α	B1(+)	B1(-)	NO	YES	YES	NO
	Belgium(CEPS)	Α	NA	NA	NO	YES	YES	NO
	The Netherlands							
	(CEPS)	A(-)	NA	NA	NO	YES	YES	NO
	Germany(CEPS)	A(+)	A(-)	B2(-)	NO	YES	YES	NO

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SECTION 3 DETAILED LABORATORY INFORMATION BY COUNTRY

BELGIUM

1. Name of laboratory: Defence Laboratories (DLD)/POL LAB

2. Point of contact and address: Kwartier Majoor Housiau, Martelarenstraat, 181

B-1800 PEUTIE, Belgium

Phone: (+32) (0)2 244 10472 (+32) (0)2 244 10483

Email: <u>karen.pieters@mil.be</u>

ruben.muyllaert@mil.be

3. Capabilities

	a.	Aviation Turbine Fuels Comment (for tests): Except existent gum, lead	Testing level	B2
	b.	<u>Diesel Fuel</u> Comment (for tests): Except CFPP,PAH, Cetane Number, Lubricity	Testing level	A
	C.	Automotive Gasoline Comment (for tests): Except Vapour Pressure, Oxidation Stability, Existent Gum	Testing level	B2
	d.	<u>Lubricant B-2 testing capabilities</u> Comment (for tests):		YES
4.	Lat	poratory accreditation		YES
5.	Par IIS	rticipation in Inter-laboratory crosscheck program:		YES
6.	C	ployable laboratory (field) capability omment (which tests): aval Fuel (F-76): Density, Flash Point, Bacteriological Contamination		YES

7. Additional testing capability in the fixed laboratory

FTIR, ICP, FZG, TGA-MS, ...

Tests on lubricating greases: a variety of corrosion and oxidation tests.

F-44: Conductivity, FSII, Density, Flash Point, Bacteriological Contamination, JFTOT

BULGARIA

1. Name of laboratory: Central Military Laboratory

2. Point of contact and address: 1 Lt. Kostadin Hristev

Central Military Laboratory – Unit 24510

1271 Sofia, Bulgaria

Phone: (+359) (0) 2 838 0327 Fax: (+359) (0) 2 938 2954 Email: logcom@md.government.bg

3. Capabilities

Aviation Turbine Fuels Testing level B2 (-) a. Comment (for tests): Except Cu Strip Corrosion, Vapour Pressure, Lead Content, FSII, Conductivity, Thermal Stability b. Diesel Fuel Testing level B2 Comment (for tests): **Automotive Gasoline** Testing level B1 (-) c. Comment (for tests): Except Vapor Pressure, Knock Rating d. **Lubricant B-2 testing capabilities** NO Comment (for tests): See para 7 4. Laboratory accreditation NO 5. Participation in Inter-laboratory crosscheck program: NO

7. Additional testing capability in the fixed laboratory

Fuels: Lead Content in Automotive Gasoline only, Filtration and Ash in diesel,

Total Sulfur Aviation Oils: Carbon Residue, Pour Point, Viscosity at 100oC and 54.4oC, Neutralization Number.

Ash Aviation Greases: Penetration (worked), Dropping Point, Oil Separation.

Ash Aviation Hydraulic Fluids: Flash Point, Pour Point, Viscosity at 40 oC, Neutralization Number,

Particulate Contamination, Distillation

6. Deployable laboratory (field) capability

Comment (which tests):

Navy Products: Viscosity, Total Acidity, TBN, Sulfated Ash, Bottom Sediment and Water

Army Products: Viscosity at 40 oC and 100 oC, Sulfated Ash, Penetration Worked, Oil Separation, Drop

Point, Neutralization,

Distillation Antifreeze: Distillation, Ash

NO

CANADA

1. Name of laboratory: Quality Engineering Test Establishment (QETE)

2. Point of contact and address: National Defence Headquarters

ATTN: Marie Robichaud, QETE 3-3

101 Colonel By Drive, Ottawa, ON, Canada K1A 0K2

Shipping address: Quality Engineering Test Establishment

ATTN: Nathalie Gaudet, QETE 3-3, (+1) 819-939-9328 National Printing Bureau Building, Ramp No. 7, Room C-1113 45 Sacré-Cœur Boulevard, Gatineau, QC, Canada J8X 1C6

Phone: (+1) 613-513-5263 Fax: (+1) 819-997-4096 Email: AvPOLCBA@forces.ca

3. Capabilities

a. <u>Aviation Turbine Fuels</u> A Comment (for tests):

b. <u>Diesel Fuel</u> Testing level A

Comment (for tests):

c. <u>Automotive Gasoline</u> Testing level A

Comment (for tests):

d. Lubricant B-2 testing capabilities YES

Comment (for tests):

4. Laboratory accreditation

In progress

This Lab is working towards implementing a quality system equivalent to ISO 9000 Program

5. Participation in Inter-laboratory crosscheck program:

YES

Spectrometric Oil Analysis Program (SOAP) is validated through JOAP TSC/US DOD program. System detailed in the Canadian Air Force 9000 Program

6. Deployable laboratory (field) capability

NO

Comment (which tests):

7. Additional testing capability in the fixed laboratory

A-level testing for Marine gasoil (NATO code F-76)

This laboratory provides fuel, lubricants and associated products contamination investigation capability, along with condition monitoring techniques such as Ferrography, Filter Debris Analysis (FDA), hydraulic fluids particle counts using several techniques. BOCLE test method, ASTM D 5001, is available for aviation turbine fuels. Also available are specialized analysis capabilities using Scanning Electron Microscopy with Energy Dispersive X-ray Analysis, Pyrolysis GC-MS, LC-MS, X-ray Diffraction, FT-IR, DSC, TGA, ICP-MS

CANADA

Name of laboratory: Naval Engineering Test Establishment (NETE)

2. Point of contact and address: Mr. Steven Juneau, Group Leader, Chemistry Laboratory

Naval Engineering Test Establishment

9401 Wanklyn - LASALLE QC, H8R 1Z2, Canada

Phone: (+1) 514-366-4310 extension 241

Fax: (+1) 514-365-0262 Email: juneaus@nete.dnd.ca

3. Capabilities

a. <u>Aviation Turbine Fuels</u> Testing level NA Comment (for tests):

b. <u>Diesel Fuel</u> Testing level NA

Comment (for tests):

c. Automotive Gasoline Testing level NA

Comment (for tests):

d. <u>Lubricant B-2 testing capabilities</u> YES

Comment (for tests): See paragraph 7.

4. Laboratory accreditation YES

ISO 9001(2000), ISO 14001(1996) and ISO 17025 accredited.

5. Participation in Inter-laboratory crosscheck program: YES

6. Deployable laboratory (field) capability

Comment (which tests):

7. Additional testing capability in the fixed laboratory

B-2 level for Lubricating Oil, Aircraft (NATO Code O-156), Distillate Fuel Oils (NATO Code F-75, F-76), Naval Lubricants (NATO Code O-240, O-249, O-250, O-274, O-276, O-278, O-254, O-252, O-258, O-283, O-285, O-290) and Naval Hydraulic Fluids (NATO Code H-572, H-573, H-575, H-576).

This laboratory has the means to undertake investigative oil and fuel analysis. Other tests that can be conducted include particle counting in hydraulic fluids by both ISO 4406:1987 and ISO 4406:1999. Water analysis through coulometric Karl Fisher titration (ASTM D6304) can be completed both with and without drying oven. Other tests include fuel dilution through Gas Chromatography – Flame Ionization Detector (GC-FID), fuel filter blocking tendency and surface tension

NO

CZECH REPUBLIC

1. **Name of laboratory:** POL Development and Testing Department

2. Point of contact and address: Ms. Irena Dobsikova

Chief of Central POL Laboratory Logistic Services Supply Centre

Sumavska 4,

CZ-602 00 BRNO, Czech Republic

Phone: (+420) 973 442 060 Fax: (+420) 973 442 065

Email:

3. Capabilities

a. Aviation Turbine Fuels Testing level A Comment (for tests):

b. <u>Diesel Fuel</u> Testing level A Comment (for tests):

c. <u>Automotive Gasoline</u> Testing level A Comment (for tests):

d. <u>Lubricant B-2 testing capabilities</u> YES Comment (for tests):

4. Laboratory accreditation NO

5. Participation in Inter-laboratory crosscheck program: YES

6. Deployable laboratory (field) capability

able laboratory (file la) capability

Comment (which tests):

Density, FSII - Anti icing additive, Conductivity, Flash point, Test for solid impurity content

7. Additional testing capability in the fixed laboratory

- Atomic Absorption Spectroscopy (AAS)
- UV-VIS Spectroscopy
- FTIR (ATR) Spectroscopy
- HFFR, FZG, BOSCH Injector
- Total Sulphur
- Particle Counting Testing on Hydraulic Fluid

YES

DENMARK

1. Name of laboratory: Danish Defence Laboratory (Forsvarets Laboratorium)

2. Point of contact and address: Mr. Casper Noergaard

Jonstrupvej 300, Building 327 DK-3500 VAERLOESE, Denmark

Phone: (+45) 72 81 5293

Fax:

Email: FMI-LU-VF03@mil.dk

3. Capabilities

a. Aviation Turbine Fuels Comment (for tests):

b. Diesel Fuel Testing level A

Comment (for tests):

c. <u>Automotive Gasoline</u> Testing level A

Comment (for tests):

d. <u>Lubricant B-2 testing capabilities</u> YES

Comment (for tests):

4. Laboratory accreditation NO

5. Participation in Inter-laboratory crosscheck program:

YES

Participates in programs from the Institute for Interlaboratory Studies (IIS) for "Jet A-1" and for "used engine oil".

6. Deployable laboratory (field) capability

NO

Comment (which tests):

7. Additional testing capability in the fixed laboratory

Various analytical techniques: (ATR)-FTIR, DSC, GC-MS, HFRR, HPLC, ICP-MS, ICP-OES, SEM/EDX, and UV-VIS spectrophotometry.

Optical microscopy and electron microscopy with energy dispersive X-ray spectroscopy (SEM/EDX) as well as mechanical tests of tensile stress-strain and hardness are also available.

ESTONIA

1. Name of laboratory: **NO ENTRY** 2. Point of contact and address: Phone: Fax: Email: 3. Capabilities Testing level A / B1 / B2 / C **Aviation Turbine Fuels** a. Comment (for tests): Testing level A / B1 / B2 / C b. **Diesel Fuel** Comment (for tests): Automotive Gasoline Testing level A / B1 / B2 / C Comment (for tests): d. Lubricant B-2 testing capabilities YES / NO Comment (for tests): 4. Laboratory accreditation YES / NO YES / NO 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability YES / NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

FRANCE

1. Name of laboratory: Centre d'expertise pétrolière interarmées (Cepia)

2. Point of contact and address: Ingénieur en Chef Jean-Marc Bouillet

302, Chemin de Sainte Marthe F-13014 MARSEILLE, France

Phone: (+33) (0)4 95 05 2000 Fax: (+33) (0)4 95 05 2002

Email: cepia-technique.contact.fct@intradef.gouv.fr

3. Capabilities

a. <u>Aviation Turbine Fuels (NATO code F-34/F-35/F-40/F-44)</u> Testing level A Comment (for tests):

b. <u>Diesel Fuel</u> Testing level A Comment (for tests):

c. <u>Automotive Gasoline</u> Testing level A

Comment (for tests): Except oxygenates content

6. Deployable laboratory (field) capability

d. <u>Lubricant B-2 testing capabilities</u> YES Comment (for tests):

4. Laboratory accreditation YES
Accreditation regarding ISO 17025

5. Participation in Inter-laboratory crosscheck program: YES

Accreditation regarding ISO 17025 does not apply to deployable laboratories

Field laboratory (number = 2):

Toota deparintion		Туре	of product	
Tests description	F-67	F-54	F-18	F-35/F-34
Aspect	х	х	х	х
Color	х	х	х	х
Distillation	Х	Х	Х	х
Flash Point PM		х		х
Density	х	х	х	х
Freeze Point				х
Smoke Point				х
Total contamination		Х		
Gum content				Х

YES

Doctor test				х
Vapour pressure	Х		x	
Thermal oxidation stability				х
Calculated cetane index		х		
Cloud Point		х		
CFPP		х		
Copper Corrosion	х	х	x	х
Conductivity at 20°C				х
FSII Content				х
Water reaction				х
Free Water Content (hydrotest)				х
Microbiological detection		х		х
Particulate contaminant	х		х	х

Light analysis laboratory (number = 3):

Tanta da cariatica		Туре	of product	
Tests description	F-67	F-54	F-18	F-35/F-34
Aspect	Х	Х	Х	х
Color	Х	Х	Х	Х
Distillation	X	х	х	х
Density	Х	Х	Х	х
Freeze Point				х
Calculated cetane index		х		
Conductivity at 20°C				х
FSII Content				х
Microbiological detection		х		х
Particulate contaminant	Х		Х	х

7. Additional testing capability in the fixed laboratory

GERMANY

1. Name of laboratory: Wehrwissenschaftliches Institut für Werk- und Betriebsstoffe (WIWeB)

2. Point of contact and address: Mr. Heinrich Dinnebier

Institutsweg, 1

D-85435 ERDING, Germany

Phone: (+49) 8122 9590 3400 Fax: (+49) 8122 9590 3402

Email: WIWEBGB400@bundeswehr.org

3. Capabilities

a. **Aviation Turbine Fuels** Testing level Α

Comment (for tests):

Except F-40

Testing level b. Diesel Fuel Α

Comment (for tests):

Automotive Gasoline Testing level B2

Comment (for tests):

d. **Lubricant B-2 testing capabilities** YES

Comment (for tests):

YES 4. Laboratory accreditation

5. Participation in Inter-laboratory crosscheck program: YES

6. Deployable laboratory (field) capability

YES

Comment (which tests):

C-Test Aviation and Ground	Short Test Aviation Turbine Fuel	IR-Spectrophotometer
Fuels:	(Supplement to C-Test):	(Supplement to short test):
- Sampling	 Water Content, quantitative 	- FSII
- Appearance	- Water Reaction	- Density at 15oC.
- Density	- Electrical Conductivity	 Viscosity at –20°C
- Water Content, qualitative	 Particulate contamination, 	- Freezing Point
- Electrical Conductivity	quantitative	- Flash Point
(optional)	- FSII	- Distillation
	- Flash Point	- Aromatic Content
		 Naphthalene Content

Note: These three pieces of equipment can be combined when necessary

7. Additional testing capability in the fixed laboratory

Analytical Techniques e.g.:

- FTIR-Spectroscopy
- Gas-/Liquid Chromatography Mass Spectrometry
- X-Ray Fluorescence Analysis
- **ICP-OES**

GREECE

Name of laboratory: Hellenic Air Force (HAF)/State Aircraft Depot/Chemistry

2. Point of contact and address: Niki Bliona

Elefsina AFB, Elefisina, Greece

Phone: (+30) 210 550 2280 Fax: (+30) 210 550 2345 Email: Email: chemlab.kea@haf.gr

3. Capabilities

4.

5.

6.

a.	Aviation Turbine Fuels Comment (for tests): Except thermal stability	Testing level	B2(-)
b.	<u>Diesel Fuel</u> Comment (for tests): Except carbon residue & cold filter plugging point	Testing level	B1(-)
C.	Automotive Gasoline Comment (for tests): Except oxidation stability	Testing level	B1(-)
d.	<u>Lubricant B-2 testing capabilities</u> Comment (for tests): Except viscosity at lower t°, protection and oxidation		YES
. La	boratory accreditation		NO
. Pa	rticipation in Inter-laboratory crosscheck program:		NO
	eployable laboratory (field) capability omment (which tests):		NO

7. Additional testing capability in the fixed laboratory

B-2 level for Aviation Gasoline 100LL (NATO code F-18) except tetraethyl lead and oxidation stability. B-2 level for Marine gasoil 100LL (NATO code F-76) except carbon residue and cloud point.

Particulate matter & filtration time for aviation fuels.

Total Acid Number (TAN).

Particulate contamination of hydraulic fluids.

Analytical techniques (e.g.):
Spectrometric Oil Analysis
Scanning Electron Microscopy/Energy Dispersive X-ray
Atomic Absorption Spectroscopy (AAS)
Fourier Transform Infrared Spectroscopy (FTIR)

Gas Chromatography (GC-TCD/FID)

GREECE

1. Name of laboratory: Hellenic Air Force (HAF)/Petroleum Distribution Command (PDC)/

Laboratory of the Greek Pipeline System (GRPS)

2. Point of contact and address: George Dodontzidis

Petroleum Distribution Command

Eleftherio, Larissa, Greece

Phone: (+30) (2410) 56 2764 Fax: (+30) (2410) 56 3021 Email: chemlab.dak@haf.gr

3. Capabilities

a. Aviation Turbine Fuels Testing level B2 Comment (for tests):

b. Diesel Fuel Testing level B2

Comment (for tests): NATO code F-54

c. <u>Automotive Gasoline</u> Testing level B2

Comment (for tests):

d. <u>Lubricant B-2 testing capabilities</u> NO

Comment (for tests):

4. Laboratory accreditation NO

5. Participation in Inter-laboratory crosscheck program: YES

6. Deployable laboratory (field) capability

YES

Comment (which tests):

C-test of aviation and ground fuels (Incl. conductivity, FSII, density at 15°C and water reaction for aviation fuel)

7. Additional testing capability in the fixed laboratory

B-2 level for Aviation Gasoline 100LL (NATO code F-18) except tetraethyl lead.

B-2 level for Naval distillate (NATO code F-76) except bottom sediment & water, water separation

Particulate matter & filtration time for aviation fuels

Pour Point and Total Sulphur

GREECE

1. Name of laboratory: Hellenic Air Force (HAF)/115CW/Fuel Laboratory

2. Point of contact and address: Athina Bozani

Souda AFB, Chania, Greece

Phone: (+30) 282 100 5036

(+30) 282 100 5067

Fax: (+30) 282 100 5013 Email: qa.115cw@haf.gr

3. Capabilities

a. Aviation Turbine Fuels Testing level B1(-)

Comment (for tests):

Except existent gum, freezing point, copper strip corrosion, water content and atmospheric distillation

b. <u>Diesel Fuel</u> Testing level B1(-)

Comment (for tests):

Except carbon residue, sulfur content, water content and cold filter plugging point

c. <u>Automotive Gasoline</u> Testing level B1(-)

Comment (for tests):

Except existent gum, copper strip corrosion, sulfur content and oxidation stability

d. <u>Lubricant B-2 testing capabilities</u> NO

Comment (for tests):

4. Laboratory accreditation NO

5. Participation in Inter-laboratory crosscheck program: NO

6. Deployable laboratory (field) capability NO

Comment (which tests):

7. Additional testing capability in the fixed laboratory

B-1 level for Aviation Gasoline 100LL (NATO code F-18) except freezing point, atmospheric distillation, water content & tetraethyl lead

GREECE

1. Name of laboratory: Hellenic Air Force (HAF)/117CW/Fuel Laboratory

2. Point of contact and address: Paraskevi Andriopoulou

Andravida AFB, Andravida, Greece

Phone: (+30) 262 306 5687

Fax:

Email: tpe.117cw@haf.gr

3. Capabilities

a. <u>Aviation Turbine Fuels</u> Testing level B1

Comment (for tests):

b. <u>Diesel Fuel</u> Testing level B1(-)

Comment (for tests):

Except carbon residue, water content & cold filter plugging point

c. <u>Automotive Gasoline</u> Testing level B1(-)

Comment (for tests):

Except Copper strip corrosion, existent gum and oxidation stability

d. <u>Lubricant B-2 testing capabilities</u> NO

Comment (for tests):

4. Laboratory accreditation NO

5. Participation in Inter-laboratory crosscheck program: NO

6. Deployable laboratory (field) capability NO

Comment (which tests):

7. Additional testing capability in the fixed laboratory

B-1 level for Aviation Gasoline 100LL (NATO code F-18), except tetraethyl lead.

GREECE

1. Name of laboratory: Hellenic Navy (HN), Salamis Naval Base, Fuels and Lubricants Quality

Control Department

2. Point of contact and address: Peter Monogios

Skaramagas, Greece

Phone: (+30) 210 553 1666 Fax: (+30) 210 553 1659 Email: ns_dk_chem@navy.mil.gr

3. Capabilities

a. <u>Aviation Turbine Fuels</u> Testing level B2(-)

Comment (for tests):

NATO code F-44 except: existent gum, freezing point, thermal stability

b. <u>Diesel Fuel</u> Testing level B2(-)

Comment (for tests):

NATO code F-54 except: carbon residue, cold filter plugging point

NATO code F-76 except: carbon residu

c. <u>Automotive Gasoline</u> Testing level C

Comment (for tests):

d. <u>Lubricant B-2 testing capabilities</u> YES

Comment (for tests): Except: sulphated ash

4. Laboratory accreditation NO

5. Participation in Inter-laboratory crosscheck program: NO

6. Deployable laboratory (field) capability NO

Comment (which tests):

7. Additional testing capability in the fixed laboratory

AAS, FTIR, CCFD

1. Name of laboratory: Hellenic Navy (HN), Souda Naval Base, POL Fuel Laboratory

2. Point of contact and address: Dimitrios Papadopoulos

Souda Naval Base, Marathi, Chania, Greece

Phone: (+30) 282 108 2360 Fax: (+30) 282 108 2360 Email: nk_dk_nato@navy.mil.gr

3. Capabilities

a. Aviation Turbine Fuels

Testing level B2(+)

Comment (for tests):

NATO code F-44 (MIL-DTL-5624W) plus: sulphur content, particulate matter and filtration time

b. <u>Diesel Fuel</u> Testing level B2(+)

Comment (for tests):

NATO code F-76 (MIL-DTL-16884P) plus: sulphur content and particulate matter

c. <u>Automotive Gasoline</u> Testing level B2(-)

Comment (for tests):

NATO code F-67 except: vapour pressure and oxidation stability; plus sulphur content for automotive gasoline

d. <u>Lubricant B-2 testing capabilities</u> NO

Comment (for tests): Except: sulphated ash

4. Laboratory accreditation NO

5. Participation in Inter-laboratory crosscheck program: NO

6. Deployable laboratory (field) capability NO

Comment (which tests):

7. Additional testing capability in the fixed laboratory

- a. Sulphur content, particulate matter and filtration time for aviation fuel (see 3a)
- b. Sulphur content for automotive gasoline (see 3c)
- c. B1(-) test level for ground diesel fuel (NATO code F-54) except: cold filter plugging point (CFPP) and water content
- d. B2(-) level test for JP-8 (NATO code F-34) except conductivity
- e. Open cup flash point (Cleveland), water content, precipitation number and viscosity for engine oils

HUNGARY

1.	Name of laboratory:	Fuel Laboratory, Material Store Base		
2.	Point of contact and address:	OF-3 Toleugiz Mihalik Hungarian Defence Forces Material Store Base Dánszentmiklósi út 1 H-2364 Pusztavacs, Hungary		
	Phone: Fax: Email:	(+36) (29) 515-350 (+36) (29) 515-352 toleugiz.mihalik@mil.hu		
3.	3. Capabilities			
ć	Aviation Turbine Fuels Comment (for tests): NATO code F-34 / F-35 / F-40 Except: the existent gum Supplemented: viscosity at -2 smoke point FAME conter	0 / F-44 20°C	B1	
k	Diesel Fuel Comment (for tests): NATO code F-54 Supplemented: cloud point viscosity at 4 sulfur conter cetane index lubricity (corr	io °C	B1	
(C. Automotive Gasoline Comment (for tests): NATO code F-67 Except: the existent gum oxidation stability Supplemented: RON Lead	Testing level	B1	
(d. <u>Lubricant B-2 testing capabilit</u> Comment (for tests): B-2(-)	<u>ties</u>	B-2	
4.	Laboratory accreditation ISO 9001 According to EN ISO/IEC 17025 for most of the tests			
5.	5. Participation in Inter-laboratory crosscheck program:			
6.	5. Deployable laboratory (field) capability Comment (which tests):			
7.	7. Additional testing capability in the fixed laboratory			

2nd Laboratorio Tecnico A.M. di Controllo

ITALY

1. Name of laboratory:

2. Point of contact and address: Lt.Col. Daniele CAUCCI Aeronautica Militare Italiana 2nd Laboratorio Tecnico A.M. di Controllo Via Portuense, 1818 I-00054 FIUMICINO (RM), Italy Phone: (+39) 066 500 0114 Fax: (+39) 066 500 0114 Email: daniele.caucci@am.difesa.it 3. Capabilities **Aviation Turbine Fuels** Testing level Α a. Comment (for tests): b. Diesel Fuel Testing level NA Comment (for tests): Automotive Gasoline Testing level NA c. Comment (for tests): Lubricant B-2 testing capabilities NO d. Comment (for tests): 4. Laboratory accreditation YES ISO 17025. YES 5. Participation in Inter-laboratory crosscheck program: Oxygen (USAF) - Joint Oil Analysis Program (JOAP) - National jet-fuel crosscheck 6. Deployable laboratory (field) capability YES Comment (which tests): Oxygen, JOAP, hydraulic fluid & C+ fuel testing capabilities 7. Additional testing capability in the fixed laboratory YES Particle Counting and Water Content Testing (Karl Fischer Test) on Hydraulic Fluid.

ITALY

1. Name of laboratory: 3rd Laboratorio Tecnico A.M. di Controllo 2. Point of contact and address: Lt.Col. Antonio GUITTO Aeronautica Militare Italiana 3rd Laboratorio Tecnico A.M. di Controllo Via Torre di Mizzo 24/D I-70126 BARI Mungivacca, Italy Phone: (+39) 080 548 9616 Fax: (+39) 080 548 9320 Email: antonio.guitto@am.difesa.it laboraereo4@am.difesa.it 3. Capabilities **Aviation Turbine Fuels** Testing level Α a. Comment (for tests): b. Diesel Fuel Testing level NA Comment (for tests): **Automotive Gasoline** Testing level C. NA Comment (for tests): Lubricant B-2 testing capabilities YES d. Comment (for tests): NO 4. Laboratory accreditation 5. Participation in Inter-laboratory crosscheck program: YES Oxygen (USAF) – Joint Oil Analysis Program (JOAP) National jet-fuel and hydraulic fluid cross-check 6. Deployable laboratory (field) capability NO Comment (which tests):

7. Additional testing capability in the fixed laboratory

Particle Counting Testing on Hydraulic Fluid

YES

ITALY

1. **Name of laboratory:** 4th Laboratorio Tecnico A.M. di Controllo

2. Point of contact and address: Lt.Col. Massimo VIRGA

Aeronautica Militare Italiana

4th Laboratorio Tecnico A.M. di Controllo

Via Caluri, 112

I-37069 VERONA Villafranca (VR), Italy

Phone: (+39) 045 633 2931

Fax: (+39) 0521 93 2536

Email: massimo.virga@am.difesa.it
aboraereo4@am.difesa.it

3. Capabilities

a. Aviation Turbine Fuels Testing level A Comment (for tests):

b. <u>Diesel Fuel</u> Testing level NA

c. Automotive Gasoline Testing level NA

Comment (for tests):

Comment (for tests):

d. <u>Lubricant B-2 testing capabilities</u> NO

Comment (for tests):

4. Laboratory accreditation IN PROGRESS

This laboratory is working towards ISO 17025 quality system

5. Participation in Inter-laboratory crosscheck program: YES

National jet-fuel crosscheck

6. Deployable laboratory (field) capability
YES

Comment (which tests):

Oxygen, JOAP, hydraulic fluid & C+ fuel testing capabilities

7. Additional testing capability in the fixed laboratory YES

Particle Counting and Water Content Testing (Karl Fischer Test)

on Hydraulic Fluid.

ITALY

1. Name of laboratory: 5th Laboratorio Tecnico A.M. di Controllo 2. Point of contact and address: Maj. Luca PERFETTO AERONAUTICA MILITARE 5th Laboratorio Tecnico A.M. di Controllo Aeroporto Militare di Decimomannu G. Farina Località Forada, SS 196 Km 4 09034 Villasor (CA) Phone: (+39) 070 966 2432 Fax: (+39) 070 966 2850 Email: luca.perfetto@am.difesa.it laboraereo5@am.difesa.it 3. Capabilities Testing level a. **Aviation Turbine Fuels** A+ Comment (for tests): Included BOCLE test Diesel Fuel Testing level NA b. Comment (for tests): Testing level c. **Automotive Gasoline** NA Comment (for tests): d. Lubricant B-2 testing capabilities NO NO 4. Laboratory accreditation 5. Participation in Inter-laboratory crosscheck program: YES Joint Oil Analysis Program (JOAP) National jet-fuel and hydraulic fluid crosscheck 6. Deployable laboratory (field) capability NO Comment (which tests):

7. Additional testing capability in the fixed laboratory

Particle Counting Testing on Hydraulic Fluid.

YES

ITALY

1. Name of laboratory: 6th Laboratorio Tecnico A.M. di Controllo 2. Point of contact and address: Maj. Maurizio GABRIELE AERONAUTICA MILITARE 6th Laboratorio Tecnico A.M. di Controllo Aeroporto di Birgi - SP Trapani-Marsala, 2 I-91100 TRAPANI Phone: (+39) 0923 321 2395 Fax: (+39) 0923 321 2240 Email: maurizio.gabriele@am.difesa.it laboraereo6@am.difesa.it 3. Capabilities **Aviation Turbine Fuels** Testing level Α Comment (for tests): Diesel Fuel Testing level NA b. Comment (for tests): **Automotive Gasoline** Testing level NA c. Comment (for tests): Lubricant B-2 testing capabilities NO d. Comment (for tests): 4. Laboratory accreditation NO 5. Participation in Inter-laboratory crosscheck program: YES Joint Oil Analysis Program (JOAP) National jet-fuel and hydraulic fluid crosscheck 6. Deployable laboratory (field) capability NO Comment (which tests):

7. Additional testing capability in the fixed laboratory

Particle Counting Testing on Hydraulic Fluid

YES

LATVIA

1. Name of laboratory: NO ENTRY 2. Point of contact and address: Phone: Fax: Email: 3. Capabilities **Aviation Turbine Fuels** Testing level A / B1 / B2 / C a. Comment (for tests): b. **Diesel Fuel** Testing level A / B1 / B2 / C Comment (for tests): c. **Automotive Gasoline** Testing level A / B1 / B2 / C Comment (for tests): YES / NO d. **Lubricant B-2 testing capabilities** Comment (for tests): YES / NO 4. Laboratory accreditation 5. Participation in Inter-laboratory crosscheck program: YES / NO 6. Deployable laboratory (field) capability YES / NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

LITHUANIA

1. Name of laboratory: **NO ENTRY** 2. Point of contact and address: Phone: Fax: Email: 3. Capabilities Testing level A / B1 / B2 / C **Aviation Turbine Fuels** a. Comment (for tests): Testing level A / B1 / B2 / C b. **Diesel Fuel** Comment (for tests): Automotive Gasoline Testing level A / B1 / B2 / C Comment (for tests): d. Lubricant B-2 testing capabilities YES / NO Comment (for tests): 4. Laboratory accreditation YES / NO YES / NO 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability YES / NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

THE NETHERLANDS

1. Name of laboratory: Royal Netherlands Navy Laboratory

2. Point of contact and address: Mrs. F.E. Panoto BSc

Harssenseiland Postbus 10000

NL-1780 CA, DEN HELDER

Phone: (+31) 223 657 591 Fax: (+31) 223 657 629

Email: SCHEILAB.CZMMAT@mindef.nl

3. Capabilities

	a.	Aviation Turbine Fuels Comment (for tests): Only flash point density, distillation, total water, FSII, corrosion inhibitor	Testing level or, Cu corrosion.	B2(-)
	b.	<u>Diesel Fuel</u> Comment (for tests):	Testing level	B2
	c.	Automotive Gasoline Comment (for tests):	Testing level	NA
	d.	Lubricant B-2 testing capabilities Comment (for tests):		YES
4.		coording to ISO 17025 for most of the tests.		YES
5.	Par	ticipation in Inter-laboratory crosscheck program:		YES
6.	Dep	ployable laboratory (field) capability		NO

7. Additional testing capability in the fixed laboratory

Comment (which tests):

B-2 level for Marine gasoil (NATO code F-76) Additional test program for oil analyses related to condition monitoring.

NORWAY

1. Name of laboratory: Norwegian Defence Logistic Organization, Norwegian Defence

Laboratories, Chemistry and Materials Technology

2. Point of contact and address: Ms Bente Lauritzen

FLO/VEDL/FOLAT

Chemistry and Materials Laboratory

P.O. Box 10

N-2027 KJELLER, NORWAY

Phone: (+47) 6380 8752 Fax: (+47) 6380 8758 Email: belauritzen@mil.no

3. Capabilities

a. <u>Aviation Turbine Fuels</u> Testing level A(-)

Comment (for tests): Except mercaptan sulphur

b. <u>Diesel Fuel</u> Testing level B2(-)

Comment (for tests): Except carbon residue

c. <u>Automotive Gasoline</u> Testing level NA

Comment (for tests):

d. <u>Lubricant B-2 testing capabilities</u> NO

Comment (for tests):

4. Laboratory accreditation YES

According to ISO 17025

5. Participation in Inter-laboratory crosscheck program: YES

IIS PT Fuels and Diesel programs

6. Deployable laboratory (field) capability NO

Comment (which tests):

7. Additional testing capability in the fixed laboratory

Unknown contaminant identification capabilities to include: Fourier Transform IR (FTIR) Spectrophotometry, Scanning Electron Microscopy-Energy Dispersive Spectroscopy (SEM/EDS), GC-Mass Spectroscopy,Induction Coupled Plasma (ICP-AES), Atomic Absorption (AA-GFAAS).

POLAND

1. Name of laboratory:	Fuels and Lubricants Regional Laborat (Rejonowe Laboratorium MPS Debogo	•	
2. Point of contact and address: Phone: Fax: Email:	Slt.cmdr Krzysztof Ilczuk, Manager Debogorze P-84-232 RUMIA, Poland (+48) 261 267 514 (+48) 261 267 504 obsmps.lab.deb@ron.mil.pl		
3. Capabilities			
a. <u>Aviation Turbine Fuels</u> Comment (for tests):		Testing level	B2
b. <u>Diesel Fuel</u> Comment (for tests):		Testing level	B2
c. <u>Automotive Gasoline</u> Comment (for tests):		Testing level	B2
d. <u>Lubricant B-2 testing capabil</u> Comment (for tests):	<u>ities</u>		YES
Laboratory accreditation According to PN EN ISO/IEC 17	025:2018-02.		YES
5. Participation in Inter-laboratory IIS and other	crosscheck program:		YES
 Deployable laboratory (field) ca Comment (which tests): 	pability		NO
7. Additional testing capability in	the fixed laboratory		

POLAND

1. Name of laboratory: Fuels and Lubricants Regional Laboratory (Rejonowe Laboratorium MPS Wroclaw OBSMPS) 2. Point of contact and address: Mr. Kazimierz Czapracki - Manager Kwidzynska Street, 4 P-50-984 WROCLAW, Poland Phone: (+48) 261 658 083 Fax: (+48) 261 658 079 Email: obsmps.lab.wroc@ron.mil.pl 3. Capabilities **Aviation Turbine Fuels** Testing level NA a. Comment (for tests): b. **Diesel Fuel** Testing level Α Comment (for tests): Except cetane number Testing level c. **Automotive Gasoline** B2 Comment (for tests): Except knock rating, oxidation stability d. **Lubricant B-2 testing capabilities** YES Comment (for tests): 4. Laboratory accreditation YES According to PN EN ISO/IEC 17025:2018-02. YES 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability NO Comment (which tests):

7. Additional testing capability in the fixed laboratory

POLAND

1. Name of laboratory: Fuels and Lubricants Regional Laboratory (Rejonowe Laboratorium MPS Bydgoszcz OBSMPS) 2. Point of contact and address: Mr. Stanislaw Bigalke - Manager Gdanska Street, 147 P-85-915 BYDGOSZCZ, Poland Phone: (+48) 261 413 338
Fax: (+48) 261 414 336
Email: obsmps.lab.byd@ron.mil.pl 3. Capabilities **Aviation Turbine Fuels** Testing level Α a. Comment (for tests): b. **Diesel Fuel** Testing level Α Comment (for tests): Except cetane number Automotive Gasoline Testing level C. Α Comment (for tests): YES d. **Lubricant B-2 testing capabilities** Comment (for tests): More than B-2 requirements 4. Laboratory accreditation YES According to PN EN ISO/IEC 17025:2018-02. 5. Participation in Inter-laboratory crosscheck program: YES IIS and other 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

HFRR, BOCLE, GC, ICP, ASA, UV/VIS

POLAND

1. Name of laboratory: Fuels and Lubricants Regional Laboratory (Rejonowe Laboratorium MPS Poznan OBSMPS) 2. Point of contact and address: Maj. Robert Burkiciak - Manager Silniki Street, 1 P - 61-325 POZNAN, Poland Phone: (+48) 261 548 647 Fax: (+48) 261 548 649 Email: obsmps.lab.poz@ron.mil.pl 3. Capabilities **Aviation Turbine Fuels** Testing level Α a. Comment (for tests): Testing level b. Diesel Fuel Α Comment (for tests): **Automotive Gasoline** Testing level B2 C. Comment (for tests): d. **Lubricant B-2 testing capabilities** YES Comment (for tests): More than B-2 requirements 4. Laboratory accreditation YES According to PN EN ISO/IEC 17025:2018-02. YES 5. Participation in Inter-laboratory crosscheck program: ISS and other 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

B-2 level for Avgas F-18 B2+ level for additions for aviation fuels B2+ level for cooling liquids

Engineering and Industrial Technology National Institute

PORTUGAL

1. Name of laboratory:

2. Point of contact and address: No specific point of contact (just INETI) Estrada do Paço do Luminar P-1649-048 LISBOA, Portugal Phone: (+351) 1 21 7165141 Fax: (+351) 1 21 716901 Email: none 3. Capabilities **Aviation Turbine Fuels** Testing level **B1** a. Comment (for tests): b. Diesel Fuel Testing level В1 Comment (for tests): **Automotive Gasoline** Testing level **B**1 c. Comment (for tests): d. **Lubricant B-2 testing capabilities** YES Comment (for tests): 4. Laboratory accreditation YES ISO 17025 5. Participation in Inter-laboratory crosscheck program: NO 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

PORTUGAL

1. Name of laboratory: Direcçao de Abastecimentos Laboratory 2. Point of contact and address: Chief Engineer of the Laboratory Base Naval de Lisboa - ALFEITE P-2810-001 ALMADA, Portugal Phone: (+351) 1 21 2767225 Fax: (+351) 1 21 2731722 Email: 3. Capabilities **Aviation Turbine Fuels** Testing level Na Comment (for tests): **Diesel Fuel** Testing level B2 b. Comment (for tests): **Automotive Gasoline** Testing level NA c. Comment (for tests): Lubricant B-2 testing capabilities YES d. Comment (for tests): NO 4. Laboratory accreditation 5. Participation in Inter-laboratory crosscheck program: NO 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

ROMANIA

1. Name of laboratory: **NO ENTRY** 2. Point of contact and address: Phone: Fax: Email: 3. Capabilities Testing level A / B1 / B2 / C **Aviation Turbine Fuels** a. Comment (for tests): A / B1 / B2 / C b. **Diesel Fuel** Testing level Comment (for tests): Automotive Gasoline Testing level A / B1 / B2 / C Comment (for tests): d. Lubricant B-2 testing capabilities YES / NO Comment (for tests): 4. Laboratory accreditation YES / NO YES / NO 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability YES / NO Comment (which tests):

7. Additional testing capability in the fixed laboratory

SLOVAKIA

1. Name of laboratory: Centre for Metrology and Testing (CMaS) 2. Point of contact and address: Chief, Centre for Metrology and Testing Rajecká cesta 18, 010 01 Žilina, SLOVAKIA Phone: (+421) 960 442 831 Fax: (+421) 960 442 555 Email: CMASZilina@mil.sk 3. Capabilities Testing level a. **Aviation Turbine Fuels** Α Comment (for tests): Diesel Fuel Testing level b. Α Comment (for tests): Automotive Gasoline Testing level Α C. Comment (for tests): d. **Lubricant B-2 testing capabilities** YES / NO Comment (for tests): 4. Laboratory accreditation YES EN ISO 17025 5. Participation in Inter-laboratory crosscheck program: YES 6. Deployable laboratory (field) capability NO Comment (which tests):

7. Additional testing capability in the fixed laboratory

HFRR, BOCLE, ICP, FTIR, GC/MS, HPLC, UV/VIS test methods

SLOVENIA

1. Name of laboratory: NO ENTRY 2. Point of contact and address: Phone: Fax: Email: 3. Capabilities Testing level A / B1 / B2 / C **Aviation Turbine Fuels** a. Comment (for tests): A / B1 / B2 / C b. **Diesel Fuel** Testing level Comment (for tests): Automotive Gasoline Testing level A / B1 / B2 / C Comment (for tests): d. Lubricant B-2 testing capabilities YES / NO Comment (for tests): 4. Laboratory accreditation YES / NO YES / NO 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability YES / NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

SPAIN

1. Name of laboratory: Laboratorio Central del Ejército (LCE) – Central Laboratory of the Army

Colonel Director 2. Point of contact and address:

Acuartelamiento San Cristóbal-Villaverde

Avda. de Andalucia, km 10.200

28021 MADRID, Spain

Phone: (+34) 917 798 116 / (+34) 917 798 117

Fax: (+34) 917 794 589 Email: laboratorio_central@et.mde.es

3. Capabilities

Aviation Turbine Fuels Testing level B1(±) a.

Comment (for tests):

Except: Vapour pressure

In addition: Total Acid Number, Doctor test and viscosity at −20 °C

b. **Diesel Fuel** Testing level B1(+)

Comment (for tests):

In addition: Cloud point, viscosity at 40 °C, copper strip corrosion, ash content, oxidation stability, total contamination, cetane index and freeze point

Testing level B1(-) Automotive Gasoline C.

Comment (for tests): Except: Vapour pressure

YES d. **Lubricant B-2 testing capabilities**

Comment (for tests): See paragraph 7.

4. Laboratory accreditation YES

ISO 17025; accredited as Center for Technical Activity by the Spanish Ministry of Defense

5. Participation in Inter-laboratory crosscheck program: YES

6. Deployable laboratory (field) capability NO

Comment (which tests):

7. Additional testing capability in the fixed laboratory

Detection and identification of metallic elements by rotating disk electrode (RDE) emission spectrometry, as part of the Spanish Army Oil Analysis Program.

Testing of greases (worked and unworked penetration, oil separation, drop point, copper strip corrosion, oxidation tests, etc.).

Testing level A for NATO F-76 naval distillate fuel except cetane number, sulfur contents and accelerated storage stability.

Base Principal FAMET – FAMET Main Base

SPAIN

1. Name of laboratory:

2. Point of contact and address: Phone & Fax: Email:	Chief, FAMET Main Base Fuel Laboratory Base "Coronel Maté" Colmenar Viejo, MADRID, Spain (+34) 918 465 500	
3. Capabilities		
a. <u>Aviation Turbine Fuels</u> Comment (for tests):	Testing level	B2
b. <u>Diesel Fuel</u> Comment (for tests):	Testing level	NA
c. <u>Automotive Gasoline</u> Comment (for tests):	Testing level	NA
d. <u>Lubricant B-2 testing capability</u> Comment (for tests):	<u>ties</u>	NO
4. Laboratory accreditation		NO
5. Participation in Inter-laboratory	crosscheck program:	NO
6. Deployable laboratory (field) ca Comment (which tests):	pability	NO
7. Additional testing capability in	the fixed laboratory	

SPAIN

1.	Name of laboratory:	BHELA I (Helicopter Attack Battalion I)		
2.	Point of contact and address: Phone & Fax: Email:	Chief, BHELA I Fuel Laboratory Base "Coronel Sánchez Bilbao" Almagro, C (+34) 926 262 345	CIUDAD REAL, Spai	in
3.	Capabilities			
ā	Aviation Turbine Fuels Comment (for tests):	Те	esting level C	
t	o. <u>Diesel Fuel</u> Comment (for tests):	Te	esting level NA	
C	c. <u>Automotive Gasoline</u> Comment (for tests):	Те	sting level NA	•
C	d. <u>Lubricant B-2 testing capabili</u> Comment (for tests):	<u>ities</u>	NC)
4.	Laboratory accreditation		NC)
5.	Participation in Inter-laboratory	crosscheck program:	NC)
6.	Deployable laboratory (field) ca Comment (which tests):	pability	NC)
7.	Additional testing capability in	the fixed laboratory		

BHELEME II (Emergency Helicopter Battalion II)

SPAIN

1. Name of laboratory:

2. Point of contact and address: Phone & Fax: Email:	Chief, BHELEME II Fuel Laboratory Base "Jaime I" Bétera, VALENCIA, Spain (+34) 961 699 258		
3. Capabilities			
a. <u>Aviation Turbine Fuels</u> Comment (for tests):		Testing level	С
b. <u>Diesel Fuel</u> Comment (for tests):		Testing level	NA
c. <u>Automotive Gasoline</u> Comment (for tests):		Testing level	NA
d. <u>Lubricant B-2 testing capabili</u> Comment (for tests):	<u>ties</u>		NO
4. Laboratory accreditation			NO
5. Participation in Inter-laboratory	crosscheck program:		NO
6. Deployable laboratory (field) ca Comment (which tests):	pability		NO
7. Additional testing capability in the fixed laboratory			

BHELMA III (Manoeuvre Helicopter Battalion III)

SPAIN

1. Name of laboratory:

Point of contact and Pr	d address: none & Fax: Email:	Chief, BHELMA III Fuel Laboratory Acuartelamiento "Héroes del Revellín" Agoncillo, LA RIOJA, Spain (+34) 941 279 461		
3. Capabilities				
a. <u>Aviation Turbine</u> Comment (for te			Testing level	С
b. <u>Diesel Fuel</u> Comment (for te	sts):		Testing level	NA
c. <u>Automotive Gas</u> Comment (for te			Testing level	NA
d. <u>Lubricant B-2 tes</u> Comment (for te		<u>ities</u>		NO
4. Laboratory accredit	ation			NO
5. Participation in Inte	r-laboratory	v crosscheck program:		NO
6. Deployable laborate Comment (which te		apability		NO
7. Additional testing c	apability in	the fixed laboratory		

SPAIN

1. Name of laboratory: BHELMA IV (Manoeuvre Helicopter Battalion IV)

2. Point of contact and address: Chief, BHELMA IV Fuel Laboratory

Base "El Copero"

Dos Hermanas, SEVILLA, Spain

Phone & Fax: (+34) 954 939 057

Email:

3. Capabilities

a.	Aviation Turbine Fuels Comment (for tests):	Testing level	A / B1 / B2 / C
b.	Diesel Fuel Comment (for tests):	Testing level	A / B1 / B2 / C
C.	Automotive Gasoline Comment (for tests):	Testing level	A / B1 / B2 / C

d. <u>Lubricant B-2 testing capabilities</u> YES / NO Comment (for tests):

4. Laboratory accreditation YES / NO

5. Participation in Inter-laboratory crosscheck program: YES / NO

6. Deployable laboratory (field) capability

YES / NO

Comment (which tests):

7. Additional testing capability in the fixed laboratory

Destacamento de Melilla del BHELMA IV - BHELMA IV Melilla

SPAIN

1. Name of laboratory:

Detachment 2. Point of contact and address: Chief, BHELMA IV (Melilla Detachment) Fuel Laboratory Helipuerto Militar de Melilla MELILLA, Spain Phone & Fax: Phone & Fax: (+34) 952 699 617 Email: 3. Capabilities a. **Aviation Turbine Fuels** Testing level С Comment (for tests): Testing level NA b. Diesel Fuel Comment (for tests): c. **Automotive Gasoline** Testing level NA Comment (for tests): Lubricant B-2 testing capabilities d. NO Comment (for tests): 4. Laboratory accreditation NO 5. Participation in Inter-laboratory crosscheck program: NO 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

BHELMA VI (Manoeuvre Helicopter Battalion VI)

SPAIN

1. Name of laboratory:

2. Point of contact and address: Phone & Fax: Email:	Chief, BHELMA VI Fuel Laboratory Acuartelamiento "Los Rodeos" La Laguna, TENERIFE, Spain (+34) 922 676 141		
3. Capabilities			
a. <u>Aviation Turbine Fuels</u> Comment (for tests):		Testing level	С
b. <u>Diesel Fuel</u> Comment (for tests):		Testing level	NA
c. <u>Automotive Gasoline</u> Comment (for tests):		Testing level	NA
d. <u>Lubricant B-2 testing capabil</u> Comment (for tests):	ities_		NO
4. Laboratory accreditation			NO
5. Participation in Inter-laboratory	crosscheck program:		NO
6. Deployable laboratory (field) ca Comment (which tests):	pability		NO
7. Additional testing capability in	the fixed laboratory		

Centro de Carburantes (CCAR) de la Agrupación de Apoyo

SPAIN

1. Name of laboratory:

Logístico 41 (AALOG 41) - Fuel Centre (CCAR), Logistic Support Group 41 (AALOG 41) 2. Point of contact and address: Chief, Fuel Laboratory, AALOG 41 - CCAR Base "San Jorge" San Gregorio, ZARAGOZA, Spain Phone & Fax: (+34) 976 520 581 Email: 3. Capabilities **Aviation Turbine Fuels** Testing level С a. Comment (for tests): b. Diesel Fuel Testing level NA Comment (for tests): Automotive Gasoline Testing level NA c. Comment (for tests): Lubricant B-2 testing capabilities d. NO Comment (for tests): 4. Laboratory accreditation NO NO 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

SPAIN

1. Name of laboratory: Laboratorio de Combustibles y Lubricantes Arsenal de Cartagena 2. Point of contact and address: Chief, F&L Laboratory Muelle del Petroleo s/n 30290 CARTAGENA NAVAL (Murcia), Spain Phone: (+34) 968 529 550 Fax: Email: 3. Capabilities **Aviation Turbine Fuels** Testing level B1(-) a. Comment (for tests): Except vapour pressure, existent gum and freezing point Diesel Fuel Testing level b. B1(-) Comment (for tests): Except cold filter plug point **Automotive Gasoline** Testing level B1(-) C. Comment (for tests): Except vapour pressure, existent gum and oxidation stability d. **Lubricant B-2 testing capabilities** YES Comment (for tests): 4. Laboratory accreditation NO 5. Participation in Inter-laboratory crosscheck program: NO

7. Additional testing capability in the fixed laboratory

6. Deployable laboratory (field) capability

Comment (which tests):

NO

Laboratorio de Fluidos

SPAIN

1. Name of laboratory:

Chief, Predictive maintenance, Laboratory and 2. Point of contact and address: **Technical Office** Arsenal Militar de El Ferrol El Ferrol, LA CORUÑA, Spain Phone & Fax: (+34) 981 336 104 Email: 3. Capabilities a. **Aviation Turbine Fuels** Testing level В1 Comment (for tests): Diesel Fuel Testing level **B**1 b. Comment (for tests): Testing level В1 Automotive Gasoline c. Comment (for tests): YES Lubricant B-2 testing capabilities d. Comment (for tests): 4. Laboratory accreditation NO 5. Participation in Inter-laboratory crosscheck program: NO 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

SPAIN

1. Name of laboratory: Laboratorio Servicio de Combustibles – Fuel Service Laboratory 2. Point of contact and address: Chief, Fuel Service Laboratory Arsenal Militar Las Palmas C/Leon y Castillo, 310 35007 LAS PALMAS de GRAN CANARIA, Spain Phone & Fax: (+34) 928 443 151 Email: 3. Capabilities Testing level **Aviation Turbine Fuels** NA Comment (for tests): **Diesel Fuel** Testing level **B1** b. Comment (for tests): **Automotive Gasoline** Testing level NA c. Comment (for tests): Lubricant B-2 testing capabilities YES d. Comment (for tests): NO 4. Laboratory accreditation 5. Participation in Inter-laboratory crosscheck program: NO 6. Deployable laboratory (field) capability NO Comment (which tests):

7. Additional testing capability in the fixed laboratory

SPAIN

1. Name of laboratory: Laboratorio de Combustibles y Lubricantes – F&L Laboratory

2. Point of contact and address: Chief, F&L Laboratory

Arsenal de La Carraca

11110, SAN FERNANDO Naval, CÁDIZ, Spain

Phone: (+34) 956 599 000 Ext. 35372

Fax: (+34) 956 599 204

Email:

3. Capabilities

a.	Aviation Turbine Fuels Comment (for tests): Except conductivity, Reid vapour pressure, lead and existent gum	Testing level	B2(-)
b.	<u>Diesel Fuel</u> Comment (for tests): Except carbon residue	Testing level	B2(-)
C.	Automotive Gasoline Comment (for tests): Except existent gum, oxidation stability and RVP	Testing level	B2(-)
d.	<u>Lubricant B-2 testing capabilities</u> Comment (for tests): Not all B-2 tests		YES
4. La	boratory accreditation		NO
5. Pa	rticipation in Inter-laboratory crosscheck program:		YES
	ployable laboratory (field) capability comment (which tests):		NO

7. Additional testing capability in the fixed laboratory

Analysis of pollution and degradation in service of lubricant oils and hydraulic fluids. Testing level B-2 for NATO F-76 naval distillate fuel.

SPAIN

1. Name of laboratory: Base Aérea de Albacete - Albacete Air Force Base 2. Point of contact and address: Chief, Fuels Section Base Aérea de Albacete Carretera de Murcia s/n 02071 ALBACETE, Spain Phone & Fax: (+34) 967 556 148 Email: jmatris@ea.mde.es 3. Capabilities a. Aviation Turbine Fuels Testing level **B1** Comment (for tests): **Diesel Fuel** Testing level b. B2(-) Comment (for tests): Except Carbon residue and cold filter plugging point **Automotive Gasoline** Testing level B2 Comment (for tests): NO d. Lubricant B-2 testing capabilities Comment (for tests): 4. Laboratory accreditation NO YES 5. Participation in Inter-laboratory crosscheck program:

7. Additional testing capability in the fixed laboratory

6. Deployable laboratory (field) capability

Comment (which tests):

Testing Level B-2 for NATO F-18 aviation gasoline except Oxidation stability and tetra ethyl lead.

NO

SPAIN

1. Name of laboratory: Base Aérea de Alcantarilla – Alcantarilla Air Force Base

2. Point of contact and address: Chief, Fuels Section

Base Aérea de Alcantarilla Avenida de Lorca s/n

30820 Alcantarilla, MURCIA, Spain

Phone & Fax: (+34) 968 397 267

Email: jmedper@ea.mde.es

3. Capabilities

a.	Aviation Turbine Fuels	Testing level	B1
	Comment (for tests):	•	

b. <u>Diesel Fuel</u> Testing level B2(-)

Comment (for tests):

Except Carbon residue and cold filter plugging point

c. <u>Automotive Gasoline</u> Testing level B2

Comment (for tests):

d. <u>Lubricant B-2 testing capabilities</u> NO

Comment (for tests):

4. Laboratory accreditation NO

5. Participation in Inter-laboratory crosscheck program: YES

6. Deployable laboratory (field) capability NO

Comment (which tests):

7. Additional testing capability in the fixed laboratory

Testing Level B-2 for NATO F-18 aviation gasoline except Oxidation stability and tetra ethyl lead.

SPAIN

1. Name of laboratory: Base Aérea de Armilla – Armilla Air Force Base

2. **Point of contact and address:** Chief, Fuels Section

Base Aérea de Armilla Ctra. de Motril s/n

18100 Armilla, GRANADA, Spain

Phone & Fax: (+34) 958 218 892

Email: jmar241@ea.mde.es

3. Capabilities

a. Aviation Turbine Fuels Comment (for tests):

Testing level B1

b. <u>Diesel Fuel</u> Testing level B2(-)

Comment (for tests):

Except Carbon residue and cold filter plugging point

c. <u>Automotive Gasoline</u> Testing level B2

Comment (for tests):

d. <u>Lubricant B-2 testing capabilities</u> NO Comment (for tests):

4. Laboratory accreditation NO

5. Participation in Inter-laboratory crosscheck program: YES

6. Deployable laboratory (field) capability NO

Comment (which tests):

7. Additional testing capability in the fixed laboratory

Testing Level B-2 for NATO F-18 aviation gasoline except Oxidation stability and tetra ethyl lead.

SPAIN

1. Name of laboratory: Centro Logístico de Material de Apoyo (CLOMA) – Logistic Support

Material Centre (CLOMA)

2. Point of contact and address: Chief, CLOMA Central Laboratory

Base Aérea de Cuatro Vientos

Avda. Aviación 14 L-10

28054 Cuatro Vientos, MADRID, Spain

Phone & Fax: (+34) 916 493 318 / (+34) 916 493 195 Email: aagrgut@ea.mde.es

3. Capabilities

Aviation Turbine Fuels Testing level B1(+) a.

Comment (for tests):

In addition: Total Acid Number

b. **Diesel Fuel** Testing level B2(±)

Comment (for tests):

Except Carbon residue and cold filter plugging point.

In addition: Cloud Point, Viscosity at 40 °C, Copper strip corrosion, ash content, water content and total

contamination.

Automotive Gasoline Testing level B2 C.

Comment (for tests):

d. Lubricant B-2 testing capabilities YES

Comment (for tests):

4. Laboratory accreditation NO

Quality assurance system certified according to AQAP 2120

5. Participation in Inter-laboratory crosscheck program: YES

6. Deployable laboratory (field) capability YES

Comment (which tests):

7. Additional testing capability in the fixed laboratory

Testing Level B-2 for NATO F-18 aviation gasoline except Oxidation stability

SPAIN

1. Name of laboratory: Base Aerea de Gando - Gando Air Force Base 2. Point of contact and address: Chief, Fuels Section Base Aérea de Gando Aeropuerto de Gran Canaria s/n 35219 LAS PALMAS de GRAN CANARIA, Spain Phone & Fax: (+34) 928 218 626 Email: jfraalo@ea.mde.es 3. Capabilities **Aviation Turbine Fuels** Testing level **B1** Comment (for tests): **Diesel Fuel** Testing level b. B2(-) Comment (for tests): Except Carbon residue and cold filter plugging point **Automotive Gasoline** Testing level B2 Comment (for tests): NO d. Lubricant B-2 testing capabilities Comment (for tests): NO 4. Laboratory accreditation 5. Participation in Inter-laboratory crosscheck program: YES 6. Deployable laboratory (field) capability NO Comment (which tests):

7. Additional testing capability in the fixed laboratory

SPAIN

1. Name of laboratory: Base Aérea de Getafe - Getafe Air Force Base 2. Point of contact and address: Chief, Fuels Section Base Aérea de Getafe Plaza del Coronel Polanco s/n 28906 Getafe, MADRID, Spain Phone & Fax: (+34) 917 798 411 Email: mdiapa1@ea.mde.es 3. Capabilities **Aviation Turbine Fuels** Testing level **B1** Comment (for tests): **Diesel Fuel** Testing level b. B2(-) Comment (for tests): Except Carbon residue and cold filter plugging point **Automotive Gasoline** Testing level B2 Comment (for tests): NO d. Lubricant B-2 testing capabilities Comment (for tests): 4. Laboratory accreditation NO YES 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

Testing Level B-2 for NATO F-18 aviation gasoline except Oxidation stability

SPAIN

1. Name of laboratory: Aerodromo militar de Lanzarote – Lanzarote Military Airfield

2. Point of contact and address: Chief, Fuels Section

Aeródromo Militar de Lanzarote Carretera del Aeropuerto s/n

35550 San Bartolomé, LANZAROTE, Spain

Phone & Fax: (+34) 928 846 815

Email: fpascab@ea.mde.es

3. Capabilities

a. Aviation Turbine Fuels Testing level B1 Comment (for tests):

b. <u>Diesel Fuel</u> Testing level B2(-)

Comment (for tests):

Except Carbon residue and cold filter plugging point

c. <u>Automotive Gasoline</u> Testing level B2

Comment (for tests):

d. <u>Lubricant B-2 testing capabilities</u> NO

Comment (for tests):

4. Laboratory accreditation NO

5. Participation in Inter-laboratory crosscheck program: YES

6. Deployable laboratory (field) capability NO

Comment (which tests):

7. Additional testing capability in the fixed laboratory

Testing Level B-2 for NATO F-18 aviation gasoline except Oxidation stability and tetra ethyl lead.

SPAIN

1. Name of laboratory: Aerodromo militar de Leon – León Military Airfield 2. Point of contact and address: Chief, Fuels Section Academia Básica del Aire Avenida de Aviación s/n 24198 24198 Virgen del Camino, LEÓN, Spain Phone & Fax: (+34) 987 843 640 Email: 3. Capabilities **Aviation Turbine Fuels** Testing level **B1** Comment (for tests): **Diesel Fuel** Testing level b. B2(-) Comment (for tests): Except Carbon residue and cold filter plugging point **Automotive Gasoline** Testing level B2 Comment (for tests): NO d. Lubricant B-2 testing capabilities Comment (for tests): NO 4. Laboratory accreditation 5. Participation in Inter-laboratory crosscheck program: YES 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

SPAIN

1. Name of laboratory: Base Aérea de Malaga - Málaga Air Force Base 2. Point of contact and address: Chief, Fuels Section Base Aérea de Málaga Ctra. N-340 km 7 29004 MÁLAGA, Spain Phone & Fax: (+34) 952 176 876 Email: 3. Capabilities **Aviation Turbine Fuels** Testing level **B1** Comment (for tests): **Diesel Fuel** Testing level b. B2(-) Comment (for tests): Except Carbon residue and cold filter plugging point **Automotive Gasoline** Testing level B2 Comment (for tests): NO d. Lubricant B-2 testing capabilities Comment (for tests): NO 4. Laboratory accreditation 5. Participation in Inter-laboratory crosscheck program: YES 6. Deployable laboratory (field) capability NO Comment (which tests):

7. Additional testing capability in the fixed laboratory

Testing Level B-2 for NATO F-18 aviation gasoline except Oxidation stability and tetra ethyl lead.

SPAIN

1. Name of laboratory: Base Aérea de Matacan - Matacán Air Force Base 2. Point of contact and address: Chief, Fuels Section Base Aérea de Matacán Ctra. de Madrid km 14,5 37080 SALAMANCA, Spain Phone & Fax: (+34) 923 129 724 Email: fsang37@ea.mde.es 3. Capabilities **Aviation Turbine Fuels** Testing level **B1** Comment (for tests): **Diesel Fuel** Testing level b. B2(-) Comment (for tests): Except Carbon residue and cold filter plugging point **Automotive Gasoline** Testing level B2 Comment (for tests): NO d. Lubricant B-2 testing capabilities Comment (for tests): 4. Laboratory accreditation NO YES 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

Testing Level B-2 for NATO F-18 aviation gasoline except Oxidation stability

SPAIN

1. Name of laboratory: Base Aérea de Morón - Morón Air Force Base 2. Point of contact and address: Chief, Fuels Section Base Aérea de Morón Ctra. Sevilla-Morón, km 14 41600 Morón de la Frontera, SEVILLA, Spain Phone & Fax: (+34) 954 842 236 Email: 3. Capabilities **Aviation Turbine Fuels** Testing level **B1** Comment (for tests): **Diesel Fuel** Testing level b. B2(-) Comment (for tests): Except Carbon residue and cold filter plugging point **Automotive Gasoline** Testing level B2 Comment (for tests): NO d. Lubricant B-2 testing capabilities Comment (for tests): 4. Laboratory accreditation NO YES 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

Testing Level B-2 for NATO F-18 aviation gasoline except Oxidation stability

SPAIN

1. Name of laboratory: Aerodromo militar de Pollensa – Pollensa Military Airfield 2. Point of contact and address: Chief, Fuels Section Aeródromo Militar de Pollensa Base Aérea s/n Port de Pollensa 07470 Pollensa, PALMA DE MALLORCA, Spain Phone & Fax: (+34) 971 868 113 Email: jblaver1@ea.mde.es 3. Capabilities B1(-) **Aviation Turbine Fuels** Testing level Comment (for tests): Except existent gum **Diesel Fuel** Testing level b. B2(-) Comment (for tests): Except Carbon residue and cold filter plugging point **Automotive Gasoline** Testing level B2(-) Comment (for tests): Except Existent gum NO Lubricant B-2 testing capabilities Comment (for tests): NO 4. Laboratory accreditation 5. Participation in Inter-laboratory crosscheck program: NO 6. Deployable laboratory (field) capability NO Comment (which tests):

SPAIN

1. Name of laboratory: Base Aérea de San Javier - San Javier Air Force Base 2. Point of contact and address: Chief, Fuels Section Base Aérea de San Javier Avenida Coronel López Peña s/n 30720 San Javier, MURCIA, Spain Phone & Fax: (+34) 968 189 362 Email: abaijim@ea.mde.es 3. Capabilities **Aviation Turbine Fuels** Testing level **B1** Comment (for tests): **Diesel Fuel** Testing level b. B2(-) Comment (for tests): Except Carbon residue and cold filter plugging point **Automotive Gasoline** Testing level B2 Comment (for tests): NO d. Lubricant B-2 testing capabilities Comment (for tests): 4. Laboratory accreditation NO YES 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

Testing Level B-2 for NATO F-18 aviation gasoline except Oxidation stability

SPAIN

1. Name of laboratory: Base Aérea de Son San Juan – Son San Juan Air Force Base

2. Point of contact and address: Chief, Fuels Section

Base Aérea de Son San Juan Carretera de Manacor, km 8

07071 PALMA DE MALLORCA, Spain

Phone & Fax: (+34) 971 497 528 Email: lcorfig@ea.mde.es

3. Capabilities

a.	Aviation Turbine Fuels	Testing level	B1
	Comment (for tests):	_	

b. <u>Diesel Fuel</u> Testing level B2(-) Comment (for tests):

Except Carbon residue and cold filter plugging point

c. <u>Automotive Gasoline</u> Testing level B2 Comment (for tests):

d. <u>Lubricant B-2 testing capabilities</u> NO Comment (for tests):

4. Laboratory accreditation NO

5. Participation in Inter-laboratory crosscheck program: YES

6. Deployable laboratory (field) capability
Comment (which tests):

7. Additional testing capability in the fixed laboratory

Testing Level B-2 for NATO F-18 aviation gasoline except Oxidation stability and tetra ethyl lead.

SPAIN

1. Name of laboratory: Base Aérea de Talavera - Talavera Air Force Base 2. Point of contact and address: Chief, Fuels Section Base Aérea de Talavera Ctra. Madrid-Lisboa, s/n 06140 Talavera la Real, BADAJOZ, Spain Phone & Fax: (+34) 924 209 576 Email: jgallo8@ea.mde.es 3. Capabilities Testing level В1 **Aviation Turbine Fuels** a. Comment (for tests): b. **Diesel Fuel** Testing level B2(-) Comment (for tests): Except Carbon residue and cold filter plugging point Automotive Gasoline Testing level B2 c. Comment (for tests): NO d. Lubricant B-2 testing capabilities Comment (for tests): 4. Laboratory accreditation NO 5. Participation in Inter-laboratory crosscheck program: YES 6. Deployable laboratory (field) capability NO Comment (which tests):

SPAIN

1. Name of laboratory: Base Aérea de Torrejón – Torrejón Air Force Base 2. Point of contact and address: Chief, Fuels Section Base Aérea de Torrejón Ctra. de Barcelona, km 22,800 28850 Torrejón de Ardoz, MADRID, Spain Phone & Fax: (+34) 916 274 334 Email: jgarb40@ea.mde.es 3. Capabilities a. **Aviation Turbine Fuels** Testing level В1 Comment (for tests): B2(-) Diesel Fuel Testing level b. Comment (for tests): Except carbon residue and cold filter plugging point B2 **Automotive Gasoline** Testing level C. Comment (for tests): Lubricant B-2 testing capabilities NO d. Comment (for tests): 4. Laboratory accreditation NO YES 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability NO Comment (which tests):

7. Additional testing capability in the fixed laboratory

Testing Level B-2 for NATO F-18 aviation gasoline except Oxidation stability

SPAIN

1. Name of laboratory: Base Aérea de Villanubla – Villanubla Air Force Base 2. Point of contact and address: Chief, Fuels Section Base Aérea de Villanubla Ctra. N-601, km 206 47620 Villanubla, VALLADOLID, Spain Phone & Fax: (+34) 983 369 708 Email: srapalv@ea.mde.es 3. Capabilities **Aviation Turbine Fuels** Testing level **B1** Comment (for tests): **Diesel Fuel** Testing level b. B2(-) Comment (for tests): Except Carbon residue and cold filter plugging point **Automotive Gasoline** Testing level B2 Comment (for tests): NO d. Lubricant B-2 testing capabilities Comment (for tests): 4. Laboratory accreditation NO YES 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory Testing Level B-2 for NATO F-18 aviation gasoline except Oxidation stability

SPAIN

1. Name of laboratory: Base Aérea de Zaragoza - Zaragoza Air Force Base 2. Point of contact and address: Chief, Fuels Section Base Aérea de Zaragoza Ctra. del Aeropuerto s/n 50190 ZARAGOZA, Spain Phone & Fax: (+34) 976 708 451 Email: afraga4@ea.mde.es 3. Capabilities a. Aviation Turbine Fuels Testing level **B1** Comment (for tests): b. **Diesel Fuel** Testing level B2(-) Comment (for tests): Except carbon residue and cold filter plugging point **Automotive Gasoline** Testing level B2 Comment (for tests): NO d. Lubricant B-2 testing capabilities Comment (for tests): NO 4. Laboratory accreditation 5. Participation in Inter-laboratory crosscheck program: YES 6. Deployable laboratory (field) capability NO Comment (which tests):

SPAIN

Name of laboratory: Instituto Nacional de Técnica Aeroespacial (INTA) – National Institute of

Aerospace Technique (INTA)

Área de Combustibles y Lubricantes – F&L Service

2. Point of contact and address: Loreto Pazos Bazán

Head, Fuels and Lubricants Service

INTA

Carretera de Ajalvir, km 4

28850 Torrejón de Ardoz, MADRID, Spain

Phone: (+34) 915 201 504 Fax: (+34) 915 201 272 Email: pazosl@inta.es

3. Capabilities

4. <u>Aviation Turbine Fuels</u> Testing level A

Comment (for tests):

a. <u>Diesel Fuel</u> Testing level A(-)

Comment (for tests):

Except polycyclic aromatic hydrocarbons

b. <u>Automotive Gasoline</u> Testing level A

Comment (for tests):

c. <u>Lubricant B-2 testing capabilities</u> YES

Comment (for tests):

5. Laboratory accreditation NO

Accredited as Center for Technical Activity by the Spanish Ministry of Defence. Accreditation according to ISO 17025 in process.

6. Participation in Inter-laboratory crosscheck program: YES

7. Deployable laboratory (field) capability

NO

Comment (which tests):

8. Additional testing capability in the fixed laboratory

Oils, greases, brake fluids and coolants analysis.

Testing level A for NATO F-76 naval distillate fuel.

Testing level A(-) for NATO F-18 aviation gasoline except knock value and performance number.

SWITZERLAND

1. Name of laboratory: Intertek (Schweiz) AG

2. Point of contact and address: Christian Messerli

Wagistrasse 2 8952 Schlieren ZH

Internet: www.betriebsstoffe.ch

Phone: 0041 43 433 78 10 Fax: 0041 43 433 78 19 Email: schlieren@intertek.com

3. Capabilities

Aviation Turbine Fuels Testing level A(+)a. Comment (for tests): Microbiological growth, FAME, DIEGME Diesel Fuel Testing level A(-) b. Comment (for tests): Except oxidation stability **Automotive Gasoline** Testing level A(-) c. Comment (for tests): Except oxidation stability d. **Lubricant B-2 testing capabilities** YES Comment (for tests): Much more than B2 requirement YES 4. Laboratory accreditation Swiss Testing, STS-Nr. 452, ISO 17025 5. Participation in Inter-laboratory crosscheck program: YES

6. Deployable laboratory (field) capability

Comment (which tests):

7. Additional testing capability in the fixed laboratory

- B-1 level for aviation gasoline
- GC-MS, ICP-OES, FTIR, Thermoanalytic (DSC, TGA)
- Able to carry out special analysis on request
- Heating oils, coal

NO

MOD Fuels & Lubricants Laboratory

TURKEY

1. Name of laboratory:

2. Point of contact and address: Mrs. Nurçiçek BURCAKLI MSB kalite Yönetime Bölge Baskanligi Akaryatkit, Madenî ve Yag Laboratuvar Md. Etlik /ANKARA, Turkey Phone: (+90) 312 384 32 50 Fax: (+90) 312 384 68 82 Email: 3. Capabilities **Aviation Turbine Fuels** Testing level B2 a. Comment (for tests): B2 **Diesel Fuel** Testing level b. Comment (for tests): Automotive Gasoline Testing level B2 C. Comment (for tests): YES d. Lubricant B-2 testing capabilities Comment (for tests): Much more than B2 requirement 4. Laboratory accreditation YES Accredited according to ISO 17025 5. Participation in Inter-laboratory crosscheck program: YES 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory YES

UKSC(G) Petroleum Laboratory

UNITED KINGDOM

1. Name of laboratory:

2. Point of contact and address: Mr. Allan Knight Princess Royal Barrack, Gutersloh D-42222 WESTFALEN, Germany Phone: (+49) (0)5 241 842 587 Fax: (+49) (0)5 241 842 557 Email: contractor3@bfgnet.de 3. Capabilities **Aviation Turbine Fuels** Testing level B2 a. Comment (for tests): Testing level B2 b. **Diesel Fuel** Comment (for tests): **Automotive Gasoline** Testing level B2 c. Comment (for tests): Lubricant B-2 testing capabilities YES d. Comment (for tests): 4. Laboratory accreditation NO 5. Participation in Inter-laboratory crosscheck program: NO 6. Deployable laboratory (field) capability YES Comment (which tests): B-1 except Cu Corrosion and Existent Gum 7. Additional testing capability in the fixed laboratory

UNITED KINGDOM

1. Name of laboratory: QinetiQ Ltd Fuels & Lubricants Centre

2. Point of contact and address: Mr. Peter Jones

Building 442, Cody Technology Park

FARNBOROUGH, Hampshire, GU14 OLX, UK

Phone: (+44) (0)1252 37 4703 Fax: (+44) (0)1252 37 4748 Email: pljones2@qinetiq.com

3. Capabilities

a. <u>Aviation Turbine Fuels</u> Testing level A Comment (for tests):

b. <u>Diesel Fuel</u> Testing level A Comment (for tests):

c. <u>Automotive Gasoline</u> Testing level A(-)

Comment (for tests):
Except octane rating (contracted out)

d. <u>Lubricant B-2 testing capabilities</u> YES Comment (for tests):

4. Laboratory accreditation NO ISO 9001

5. Participation in Inter-laboratory crosscheck program: YES

6. Deployable laboratory (field) capability

Comment (which tests):

UNITED STATES

1. Name of laboratory: Mechanical Systems Branch, Air Force Research Laboratory

2. Point of contact and address: Dr Lewis Rosado

AFRL/ RQTM

1790 Loop Road North

WPAFB, OH 45433-7103 USA

Phone: (+1) 937-255-5568 Fax: (+1) 937-656-7176

Email: lewis.rosado@wpafb.af.mil

3. Capabilities

a. Aviation Turbine Fuels Comment (for tests):

b. <u>Diesel Fuel</u> Testing level B1 Comment (for tests):

c. <u>Automotive Gasoline</u> Testing level B2

Comment (for tests):

d. <u>Lubricant B-2 testing capabilities</u> YES

Comment (for tests): See paragraph 7

4. Laboratory accreditation NO

5. Participation in Inter-laboratory crosscheck program: NO

6. Deployable laboratory (field) capability NO

Comment (which tests):

7. Additional testing capability in the fixed laboratory

Extensive lubricant and bearing R & D facilities. These include chromatography, spectrometry, ferrography, viscometry, electron microscopy, thermal analysis, COBRA, friction, and wear testers, MIL-PRF-7808 (NATO O-148 & O-163) lubricant qualification tests, turbine engine bearing rigs, magnetic bearing rigs, and a T63 turbine engine test facility.

UNITED STATES

1. Name of laboratory: Aerospace Fuels Laboratory

2. Point of contact and address: Mr. Miguel Acevedo

AFPA/PTPLA

2430 C Street, Bldg 70, Area B

WRIGHT-PATTERSON AFB, OH 45433-7632

Phone: (+1) 937-255-0739 Fax: (+1) 937-656-7744

Email: miguel.acevedo@wpafb.af.mil

3. Capabilities

a. <u>Aviation Turbine Fuels</u> Testing level A Comment (for tests):

b. Diesel Fuel Testing level B2(-)

Comment (for tests):

Except Accelerated Stability

c. <u>Automotive Gasoline</u> Testing level B2(-)

Comment (for tests):

Except Knock Rating & Oxidation Stability

d. Lubricant B-2 testing capabilities YES

Comment (for tests):

4. Laboratory accreditation NO

5. Participation in Inter-laboratory crosscheck program: YES

6. Deployable laboratory (field) capability

YES

Comment (which tests):

B2 (+JFTOT & BOCLE) Aviation / Ground fuels, Scuff Load BOCLE, Aviator's Breathing Oxygen, Compressed Breathing Air.

Lab currently located at Al Udeid AB, Qatar.

7. Additional testing capability in the fixed laboratory

Unknown contaminant identification capabilities to include:

Gas Chromatography (GC), Fourier Transform IR (FTIR) Spectrophotometry, GC-FTIR Spectrophotometry, IR Microscopy, Scanning Electron Microscopy, X-Ray Fluorescence Spectrometry, GC-Mass Spectroscopy, Induction Coupled Plasma (ICP) Spectrophotometry, Raman Spectroscopy, Ultra-Pressure Liquid Chromatography, Polarized Light Microscopy.

UNITED STATES

1. Name of laboratory: Aerospace Fuels Laboratory 2. Point of contact and address: Capt. Brent Johnson AFPA/PTPLG Unit 5161 (Bldg 854) J- OKINAWA, Japan APO AP 96368-5161 Phone: (+81) 611-734-1602 Fax: (+81) 611-734-0584 Email: brent.johnson.3@us.af.mil 3. Capabilities **Aviation Turbine Fuels** Testing level Α a. Comment (for tests): Diesel Fuel Testing level b. B2(-) Comment (for tests): **Except Accelerated Stability** Automotive Gasoline Testing level B2(-) C. Comment (for tests): Except Knock Rating & Oxidation Stability d. Lubricant B-2 testing capabilities NO Comment (for tests): 4. Laboratory accreditation NO YES 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability NO Comment (which tests):

UNITED STATES

1. Name of laboratory: Aerospace Fuels Laboratory 2. Point of contact and address: Capt. Ainsley Allen AFPA/PTPLF RAF Mildenhall, Bldg 725 BURY ST EDMUNDS, Suffolk England IP28 8NF Phone: (+44) (1) 638-54-5960 Fax: (+44) (1) 638-54-3626 Email: ainsley.allen.1@us.af.mil 3. Capabilities **Aviation Turbine Fuels** Testing level Α a. Comment (for tests): Diesel Fuel Testing level b. B2(-) Comment (for tests): **Except Accelerated Stability** Automotive Gasoline Testing level B2(-) C. Comment (for tests): Except Knock Rating & Oxidation Stability d. Lubricant B-2 testing capabilities NO Comment (for tests): 4. Laboratory accreditation NO YES 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability NO Comment (which tests):

UNITED STATES

1. Name of laboratory: USMC Tactical Petroleum Laboratory, Medium (TPLM)

2. Point of contact and address: GySgt. Groen

USMC Petroleum School

Ft. Lee, VA

TPLMs are located: 8th Engineer Support Battalion, Camp Lejuene, NC (2 labs)

9th Engineer Support Battalion, Okinawa, Japan (1 lab)
7th Engineer Support Battalion, Camp Pendleton, CA (2 labs)
Maritime Prepositioning Squadron 1 (1 lab)
Maritime Prepositioning Squadron 2 (1 lab)
Maritime Prepositioning Squadron 3 (2 labs)
USMC Petroleum School, Ft Lee, VA (1 lab)
Marine Corps Logistics Base, Albany, GA (Reserve Equipment

Pool.) (4 labs)

3. Capabilities

a. <u>Aviation Turbine Fuels</u> Testing level B1 Comment (for tests):

b. Diesel Fuel Testing level B1

Comment (for tests):

c. <u>Automotive Gasoline</u> Testing level C

Comment (for tests):

d. <u>Lubricant B-2 testing capabilities</u> NO

Comment (for tests):

4. Laboratory accreditation NO

5. Participation in Inter-laboratory crosscheck program: NO

6. Deployable laboratory (field) capability

YES

Comment (which tests):

TPLM is a deployable laboratory system contained in a standard ISO container.

-	Appearance	-	Reid Vapor Pressure
-	Color	-	Flash Point (Pensky-Marten)
-	API Gravity	-	Water Reaction
-	Particulates (CCFD and Gravimetric)	-	FSII (B-2)
-	Distillation	-	Water Separation
-	Copper Corrosion	-	Conductivity
-	Freezing Point	-	Free Water (CCFD)

UNITED STATES

1. Name of laboratory: DLA Energy - Americas North Petroleum Laboratory Alaska

2. Point of contact and address: Lab Manager Robert Tate

986, Warehouse Road

Joint Base Elmendorf-Richardson, AK 99505, United States

Phone: (+1) 253 240 3343 Cell: (+1) 907 227 1609 Email: Robert.Tate@dla.mil

3. Capabilities

a.	Aviation Turbine Fuels Comment (for tests):	Testing level	B2
b.	<u>Diesel Fuel</u> Comment (for tests): Except Accelerated Stability & Water/Sediment by Centrifuge	Testing level	B2(-)
C.	Automotive Gasoline Comment (for tests): Except Knock Rating & Oxidative Stability	Testing level	B2(-)
d.	<u>Lubricant B-2 testing capabilities</u> Comment (for tests):		NO
4. L	aboratory accreditation		NO
5. P	articipation in Inter-laboratory crosscheck program:		YES
	eployable laboratory (field) capability Comment (which tests):		NO

UNITED STATES

1. Name of laboratory: DLA Energy Europe and Africa Petroleum Laboratory

2. Point of contact and address: Chemist Elena Van Meter

Military address: CMR 422, Bldg 320

APO AE 09067

Commercial address: Bldg 320, Rhine Ordnance Barracks

Am Opelkreisel

D-67663 KAISERSLAUTERN, Germany

Phone: (+49) 637- 1408-9702

Fax:

Email: elena.vanmeter@dla.mil

3. Capabilities

а		Aviation Turbine Fuels Comment (for tests):	Testing level	Α
b		Diesel Fuel Comment (for tests): Except Accelerated Stability	Testing level	B2(-)
С		Automotive Gasoline Comment (for tests): Except Knock Rating & Oxidative Stability	Testing level	B2(-)
d		<u>Lubricant B-2 testing capabilities</u> Comment (for tests):		YES
4.	Lak	poratory accreditation		NO
5.	Par	rticipation in Inter-laboratory crosscheck program:		YES
6.	_	ployable laboratory (field) capability omment (which tests):		NO

UNITED STATES

1. Name of laboratory: Defense Logistics Agency Energy Pyeongtaek Petroleum Laboratory, Rep

of Korea

2. Point of contact and address: Lab Manager Sim (Sang Man)

COR/QAR Robert Bradley

Military address: Bldg S-848

APO AP 96271

Camp Humphreys, Rep of Korea

Commercial addres: Camp Humphreys

Bldg S-848

Anjongri, Pyongtaek 17815 Korea

Phone: (82)(031)-691-0963

Fax:

Email: SimSangMan@ahntech.com

Robert.Bradley@dla.mil

3. Capabilities

a.	Aviation Turbine Fuels	Testing level	Α
	Comment (for tests):		
	Except naphthalene, Hydrogen Content for JP-5)		
h	Diesel Fuel	Testing level	B2
υ.	<u>Dieser i der</u>	resurig level	DZ

Comment (for tests):
Except Accelerated Stability

c. Automotive Gasoline Comment (for tests):

d. <u>Lubricant B-2 testing capabilities</u> NO Comment (for tests):

4. Laboratory accreditation NO

5. Participation in Inter-laboratory crosscheck program:

6. Deployable laboratory (field) capability
Comment (which tests):

UNITED STATES

1. Name of laboratory: NAVSUP FLC Jacksonville, FL 2. Point of contact and address: Mr. Rudy Ignacio NAVSUP FLC Jacksonville Fuel Department 8808 Somers Road, Bldg 56 JACKSONVILLE, FL 32226-2600 Phone: (+1) 904 696-6556 Ext 501 Fax: (+1) 904 696-8832 Email: Rudy.Ignacio@navy.mil 3. Capabilities Testing level a. **Aviation Turbine Fuels B**1 Comment (for tests): Testing level **B1** b. Diesel Fuel Comment (for tests): **Automotive Gasoline** Testing level NA C. Comment (for tests): d. **Lubricant B-2 testing capabilities** YES Comment (for tests): 4. Laboratory accreditation NO 5. Participation in Inter-laboratory crosscheck program: YES 6. Deployable laboratory (field) capability NO Comment (which tests):

7. Additional testing capability in the fixed laboratory

B-1 level for Naval Distillate Fuels (NATO code F-76)

Mid-Atlantic Regional Fuels Laboratory

UNITED STATES

1. Name of laboratory:

2. Point of contact and address: Mr. David Lee Mid Atlantic Regional Fuels Laboratory 9673 Virginia Avenue, Bldg W-388 NORFOLK, VA 23511-3323 Phone: (+1) 757 444-2761 Fax: (+1) 757 444-8726 Email: David.L.Lee@navy.mil 3. Capabilities Testing level a. **Aviation Turbine Fuels** B2 Comment (for tests): Testing level B2 b. Diesel Fuel Comment (for tests): **Automotive Gasoline** Testing level **B1** C. Comment (for tests): d. **Lubricant B-2 testing capabilities** YES Comment (for tests): 4. Laboratory accreditation YES 5. Participation in Inter-laboratory crosscheck program: YES 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory B-2 level for Naval Distillate Fuels (NATO code F-76)

UNITED STATES

1. Name of laboratory: NAVAIRSYSCOM Fuels & Lubricants Chemistry Laboratory 2. Point of contact and address: Dr Geoff Eldridge **NAS Patuxent River** 22229 Elmer Road, Bldg 2360 PATUXENT RIVER, MD 20670 Phone: (+1) 301 757-3374 Fax: (+1) 301 757-3614 Email: geoffrey.eldridge@navy.mil 3. Capabilities Testing level **Aviation Turbine Fuels** a. Comment (for tests): Testing level b. Diesel Fuel Α Comment (for tests): **Automotive Gasoline** Testing level NA C. Comment (for tests): d. **Lubricant B-2 testing capabilities** YES Comment (for tests): 4. Laboratory accreditation NO YES 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability NO Comment (which tests):

7. Additional testing capability in the fixed laboratory GC-MS, GC-FID, HPLC-DAD, HPLC-ELSD, HPLC-MS, ICP-AES

A level for Naval Distillate Fuels (NATO code F-76)

UNITED STATES

1. Name of laboratory: NAVSUP FLC Pearl Harbor Lab 2. Point of contact and address: Benjamin Fegurgur NAVSUP Fleet Logistics Center Fuel Department (Code 704), Bldg 1685 300 Neches Avenue **PEARL HARBOR HI 96860-4549** Phone: (+1) 808 473-7989 Fax: (+1) 808 473-7981 Email: Benjamin.Fegurgur@navy.mil 3. Capabilities **Aviation Turbine Fuels** Testing level B2 a. Comment (for tests): Diesel Fuel Testing level B2 b. Comment (for tests): Automotive Gasoline Testing level B1(-) Comment (for tests): d. Lubricant B-2 testing capabilities YES Comment (for tests): 4. Laboratory accreditation NO YES 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability NO Comment (which tests):

7. Additional testing capability in the fixed laboratory B-2 level for Naval Distillate Fuels (NATO code F-76)

UNITED STATES

1. Name of laboratory: NAVSUP FLC Puget Sound 2. Point of contact and address: Mr. Donald Tailleur NAVSUP FLC Puget Sound Manchester Fuel Department 7501 Beach Drive East, Bldg 194 PORT ORCHARD, WA 98366, Attn. Don Tailleur Phone: (+1) 360 476-5737 Fax: (+1) 360 476-8305 Email: Donald.Tailleur@navy.mil 3. Capabilities a. Aviation Turbine Fuels Testing level B2 Comment (for tests): b. <u>Diesel Fu</u>el Testing level B2 Comment (for tests): Automotive Gasoline Testing level NA Comment (for tests): d. <u>Lubricant B-2 testing capabilities</u> YES Comment (for tests): 4. Laboratory accreditation NO YES 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory B-2 level for Naval Distillate Fuels (NATO code F-76)

UNITED STATES

1. Name of laboratory: NAVSUP FLC San Diego Petroleum Laboratory

2. Point of contact and address: Ms. Digna M. Feria

NAVSUP FLC San Diego Petroleum Laboratory

199 Rosecrans Street. SAN DIEGO, CA 92106

Phone: (+1) 619 553-1326 Fax: (+1) 619 553-1983 Email: Digna.feria@navy.mil

3. Capabilities

a. Aviation Turbine Fuels Comment (for tests):

b. <u>Diesel Fuel</u> Testing level B2 Comment (for tests):

c. <u>Automotive Gasoline</u> Testing level B1 Comment (for tests):

d. <u>Lubricant B-2 testing capabilities</u> YES Comment (for tests):

4. Laboratory accreditation NO

5. Participation in Inter-laboratory crosscheck program: YES

6. Deployable laboratory (field) capability

Comment (which tests):

7. Additional testing capability in the fixed laboratory

B-2 level for Naval Distillate Fuels (NATO code F-76)
Aromatics (ASTM D1319); Total Organic Halides (ASTM D4744, EPA 9020); Particle Counter (ASTM F658); Karl Fischer (ASTM D6304)

UNITED STATES

1. Name of laboratory: NAVSUP FLC Rota Laboratory 2. Point of contact and address: Patricia Vallejo, Chemist NAVSUP FLC Rota Spain **Fuels Division Laboratory** PSC 819 Box 21 FBO AE 09645 USA Phone: (+34) 956-82-4215 Fax: (+34) 956-82-4212 Email: Patricia.Vallejo.SP@eu.navy.mil 3. Capabilities **Aviation Turbine Fuels** Testing level B2 a. Comment (for tests): Diesel Fuel b. Testing level B2(-) Comment (for tests): Except water separation and storage stability С Automotive Gasoline Testing level C. Comment (for tests): d. Lubricant B-2 testing capabilities YES Comment (for tests): 4. Laboratory accreditation NO YES 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability NO Comment (which tests):

7. Additional testing capability in the fixed laboratory B-2 level for Naval Distillate Fuels (NATO code F-76)

NAVSUP FLC Yokosuka, Hachinohe Fuel Laboratory

Testing level

NA

UNITED STATES

1. Name of laboratory:

Automotive Gasoline

Comment (for tests):

c.

2. Point of contact and address: Mr. H. Honda (Physical Science Technician) FLC Hachinohe, Code 703.1 Unit 5260 APO AP 96319-5000 Phone: DSN: 226-5777 (prefix 315- from CONUS), Int'l: 0178-41-1037 Fax: Int'l: 0178-43-8914 Email: haruhisa.honda.ja@fe.navy.mil 3. Capabilities Testing level B2 a. **Aviation Turbine Fuels** Comment (for tests): Testing level NA b. Diesel Fuel Comment (for tests):

d. <u>Lubricant B-2 testing capabilities</u> NO Comment (for tests):

4. Laboratory accreditation NO

5. Participation in Inter-laboratory crosscheck program: YES

6. Deployable laboratory (field) capability
Comment (which tests):

UNITED STATES

1. Name of laboratory: NAVSUP FLC Yokosuka, Hakozaki Fuel laboratory

2. Point of contact and address: Ms. Ikuko Aki

PSC 473, Box 11 FPO AP 96349-0011

Phone: DSN: 243-0579 (prefix 315- from CONUS), Int'l: 011-81-46-816-0586 Fax: DSN: 243-0552 (prefix 315- from CONUS), Int'l: 011-81-46-816-0552

Email: Ikuko.Aki.JA@fe.navy.mil

3. Capabilities

a.	Aviation Turbine Fuels Comment (for tests): Except particulate counting	Testing level	A(-)
b.	<u>Diesel Fuel</u> Comment (for tests): Except lubricity and cetane	Testing level	A(-)
C.	Automotive Gasoline Comment (for tests): In addition RON and MON	Testing level	B2(+)
d.	<u>Lubricant B-2 testing capabilities</u> Comment (for tests):		YES
La	haratary approditation		NO

4. Laboratory accreditation

NO

5. Participation in Inter-laboratory crosscheck program:

YES

6. Deployable laboratory (field) capability

NO

Comment (which tests):

7. Additional testing capability in the fixed laboratory

A level for Naval Distillate Fuels (NATO code F-76)

UNITED STATES

1. Name of laboratory: NAVSUP FLC Yokosuka, Sasebo Fuel Laboratory

2. Point of contact and address: Ms. Megumi Tanaka

FLC Yokosuka, Det. Sasebo

PSC 476, Box 7 FPO AP 96322-0001

Phone: DSN: 252-4134 (prefix 315- from CONUS), Int'l: 011-81-95-650-4134 Fax: DSN: 252-4139 (prefix 315- from CONUS), Int'l: 011-81-95-650-4139

Email: Megumi.Tanaka.JA@fe.navy.mil

3. Capabilities

a.	Aviation Turbine Fuels Comment (for tests):	Testing level	B2
b.	<u>Diesel Fuel</u> Comment (for tests):	Testing level	B2
C.	Automotive Gasoline Comment (for tests):	Testing level	B2
d.	<u>Lubricant B-2 testing capabilities</u> Comment (for tests):		YES
4. La	boratory accreditation		NO
5. Pa	rticipation in Inter-laboratory crosscheck program:		YES
	ployable laboratory (field) capability mment (which tests):		NO

UNITED STATES

1. Name of laboratory: NAVSUP FLC Yokosuka, Guam Area Fuel Laboratory

2. Point of contact and address: Ms. G. Rosier (Physical Science Technician)

FLC Guam Area Fuel Division, Code 740

PSC 455, Box 190 FPO AP 96540-1082

Phone: DSN: 343-4089 (prefix 315- from CONUS), Int'l.: 671-343-4089

Fax:

Email: grace.rosier@fe.navy.mil

3. Capabilities

a.	Aviation Turbine Fuels Comment (for tests): In addition sediments and FSII	Testing level	C(+)
b.	<u>Diesel Fuel</u> Comment (for tests): In addition sediment	Testing level	C(+)
C.	Automotive Gasoline Comment (for tests):	Testing level	NA

d. <u>Lubricant B-2 testing capabilities</u> NO Comment (for tests):

4. Laboratory accreditation NO

5. Participation in Inter-laboratory crosscheck program: YES

6. Deployable laboratory (field) capability
Comment (which tests):

UNITED STATES

1. Name of laboratory: NAVSUP FLC Yokosuka, Diego Garcia Fuel Laboratory

2. Point of contact and address: Mark Joseph

US Naval Support Facility Diego Garcia

Petroleum Testing Laboratory

PSC 466, Box 24 FPO AP 96595-0004

Phone: DSN: 370-4770, prefix 315- from CONUS, Int'l.: 011-246-370-4770 0548

Fax:

Email: Mark.Joseph@kbr.com

3. Capabilities

a. Aviation Turbine Fuels
Comment (for tests):

Testing level B2

b. <u>Diesel Fuel</u> Testing level B2 Comment (for tests):

c. Automotive Gasoline Testing level B2 Comment (for tests):

d. <u>Lubricant B-2 testing capabilities</u> YES Comment (for tests):

4. Laboratory accreditation NO

5. Participation in Inter-laboratory crosscheck program: YES

6. Deployable laboratory (field) capability NO

Comment (which tests):

7. Additional testing capability in the fixed laboratory

B-2 level for Naval Distillate Fuels (NATO code F-76)

UNITED STATES

1. Name of laboratory: Defense Logistics Agency/Energy Okinawa Petroleum Laboratory, JA 2. Point of contact and address: Chemist Ai Nakamoto Chibana Compound RTE #74 BLDG 53140 Chibana, Okinawa City Okinawa, Japan 904-2143 Phone: (81)-808-593-4355 Fax: Email: Ai.Nakamoto.Jpn@dla.mil 3. Capabilities **Aviation Turbine Fuels** Testing level B2 a. Comment (for tests): Testing level b. Diesel Fuel B2 Comment (for tests): Testing level B2 c. Automotive Gasoline Comment (for tests): d. **Lubricant B-2 testing capabilities** YES Comment (for tests): 4. Laboratory accreditation NO YES 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability NO Comment (which tests):

U.S. Army Petroleum Laboratory

UNITED STATES

1. Name of laboratory:

2. Point of contact and address: Ms. Pauline Kline U Avenue, Bldg 85-3 New Cumberland, PA 17070 Phone: (+1) 717-770-6511, DSN: 771-6511 Fax: (+1) 717-770-4743 Email: pauline.m.kline.civ@mail.mil 3. Capabilities **Aviation Turbine Fuels** Testing level B2 a. Comment (for tests): Testing level B2 b. Diesel Fuel Comment (for tests): Automotive Gasoline Testing level B2 Comment (for tests): d. **Lubricant B-2 testing capabilities** YES Comment (for tests): NO 4. Laboratory accreditation 5. Participation in Inter-laboratory crosscheck program: YES 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory Coal Testing

UNITED STATES

1. Name of laboratory: U.S. Army Quartermaster Center and School, Seaman's Petroleum

Laboratory

2. Point of contact and address: SFC Marlon Haughton

4th Street, Bldg 11430A. FT. LEE, VA 23801-5041

Phone: (+1) 804-943-7753 Fax: (+1) 804-734-1235

Email: marlon.haughton.mil@mail.mil

3. Capabilities

a. <u>Aviation Turbine Fuels</u> Testing level B2

Comment (for tests):

b. <u>Diesel Fuel</u> Testing level B2

Comment (for tests):

c. <u>Automotive Gasoline</u> Testing level B2

Comment (for tests):

d. Lubricant B-2 testing capabilities NO

Comment (for tests):

4. Laboratory accreditation NO

5. Participation in Inter-laboratory crosscheck program: YES

6. Deployable laboratory (field) capability

NO

Comment (which tests):

The laboratory has the Petroleum Quality Analysis System - Enhanced (PQAS-E) Laboratory for training purposes only.

7. Additional testing capability in the fixed laboratory

UNITED STATES

1. Name of laboratory: Chemical Sampling and Analysis Team 2. Point of contact and address: Ms. Kathleen Arnold 400 Colleran Road, Building 363 ABERDEEN PROVING GROUND, MD 21005-5059 Phone: (+1) 410-278-2872 Fax: (+1) 410-278-7930 Email: kathleen.a.arnold12.civ@mail.mil 3. Capabilities **Aviation Turbine Fuels** Testing level В1 Comment (for tests): Diesel Fuel b. Testing level B1 Comment (for tests): Testing level B1 **Automotive Gasoline** C. Comment (for tests): d. Lubricant B-2 testing capabilities YES Comment (for tests): YES 4. Laboratory accreditation YES 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability NO Comment (which tests):

7. Additional testing capability in the fixed laboratory

UNITED STATES

1. Name of laboratory:

Ft. Hood Petroleum Laboratory 2. Point of contact and address: WO1 Ricardo Silva FT. HOOD POL LAB **BLDG 7046** FT. HOOD, TX, 76544-5070 Phone: (+1) 254-286-6989 Fax: Email: ricardo.j.silva.mil@mail.mil 3. Capabilities **Aviation Turbine Fuels** Testing level В1 Comment (for tests): b. Diesel Fuel Testing level B1 Comment (for tests): Testing level В1 **Automotive Gasoline** C. Comment (for tests): d. **Lubricant B-2 testing capabilities** NO Comment (for tests): NO 4. Laboratory accreditation 5. Participation in Inter-laboratory crosscheck program: YES 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

POL Branch Fuels Laboratory

UNITED STATES

1. Name of laboratory:

2. Point of contact and address: Mr. Michael Ingram POL Branch, S & S Division, BLDG 800, Raider St. FT. RUCKER, AL, 36351 Phone: Fax: Email: michael.r.ingram8.civ@mail.mil 3. Capabilities Testing level a. **Aviation Turbine Fuels B1** Comment (for tests): Diesel Fuel Testing level **B1** b. Comment (for tests): **Automotive Gasoline** Testing level **B**1 c. Comment (for tests): d. **Lubricant B-2 testing capabilities** NO Comment (for tests): 4. Laboratory accreditation NO 5. Participation in Inter-laboratory crosscheck program: YES 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

Leatherneck Fuels Laboratory

UNITED STATES

1. Name of laboratory:

2. Point of contact and address: Mr. Brett Fyfe Supreme Fuel Manager Camp Leatherneck FPO AE 09372 Phone: Fax: Email: brett.fyfe@supreme-group.net 3. Capabilities **Aviation Turbine Fuels** Testing level B2(-) Comment (for tests): Except existent gum Diesel Fuel b. Testing level B2 Comment (for tests): Testing level B2 **Automotive Gasoline** C. Comment (for tests): d. Lubricant B-2 testing capabilities NO Comment (for tests): NO 4. Laboratory accreditation YES 5. Participation in Inter-laboratory crosscheck program: 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

Tarin Kowt Fuels Laboratory

UNITED STATES

1. Name of laboratory:

2. Point of contact and address: Mr. Tafazwaz Muchechetere Supreme Fuel Lab Manager **FOB Tarin Kowt** APO AE 09380 Phone: Fax: Email: tafazwaz.muchechetere@supreme-group.net 3. Capabilities **Aviation Turbine Fuels** Testing level B2(-) a. Comment (for tests): Except existent gum b. Diesel Fuel Testing level B2 Comment (for tests): Automotive Gasoline Testing level B2 c. Comment (for tests): Lubricant B-2 testing capabilities NO d. Comment (for tests): 4. Laboratory accreditation NO 5. Participation in Inter-laboratory crosscheck program: YES 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

Fluor Petroleum Laboratory

UNITED STATES

1. Name of laboratory:

2. Point of contact and address: Mr. Donald Rivers FLUOR (POL) Bagram AF, Afghanistan APO AE 09354 Phone: (+1) 864-252-3381 Fax: Email: donald.rivers@fluor.com 3. Capabilities Testing level a. **Aviation Turbine Fuels** B2(-) Comment (for tests): Except existent gum Diesel Fuel Testing level B2 b. Comment (for tests): **Automotive Gasoline** Testing level B2 c. Comment (for tests): d. **Lubricant B-2 testing capabilities** NO Comment (for tests): 4. Laboratory accreditation NO 5. Participation in Inter-laboratory crosscheck program: YES 6. Deployable laboratory (field) capability NO Comment (which tests): 7. Additional testing capability in the fixed laboratory

CENTRAL EUROPE PIPELINE SYSTEM

Country: FRANCE (Laboratory of the Central Europe Pipeline System (CEPS))

1. Name of laboratory: Oléoducs de Défense Commune (ODC)

2. Point of contact and address: Karine Fatet

7. Additional testing capability in the fixed laboratory

22B Route de Demigny F-71 530 CHAMPFORGEUIL

FRANCE

Phone: (+33) (0)3 85 42 10 13 Fax: (+33) (0)3 85 42 13 09 Email: kfatet@trapil.com

3. Capabilities

a.	Aviation Turbine Fuels Comment (for tests):	Testing level	A
b.	<u>Diesel Fuel</u> Comment (for tests): In addition viscosity, FAME, sulfur and Cloud Point	Testing level	B1(+)
C.	Automotive Gasoline Comment (for tests): Except oxidation stability, vapour pressure	Testing level	B1(-)
d.	<u>Lubricant B-2 testing capabilities</u> Comment (for tests):		NO
	aboratory accreditation A level for F-34		YES
	articipation in Inter-laboratory crosscheck program: LS		YES
	eployable laboratory (field) capability Comment (which tests):		NO

CENTRAL EUROPE PIPELINE SYSTEM

Country: **BELGIUM** (Laboratory of the Central Europe Pipeline System (CEPS))

1. Name of laboratory: Belgium Pipeline Organization (BPO)

2. Point of contact and address: Serge Vansina

Tarweschoofkazerne, Parkstraat 36

B-3000 LEUVEN, Belgium

Phone: (+32) 16 248 618 Fax: (+32) 16 248 607 Email: serge.vansina@bpo.nato.be

3. Capabilities

ć		iation Turbine Fuels mment (for tests):	Testing level	Α
ŀ		esel Fuel mment (for tests):	Testing level	NA
(tomotive Gasoline mment (for tests):	Testing level	NA
(bricant B-2 testing capabilities mment (for tests):		NO
Laboratory accreditation A level for F-34 (not accredited for S-1745 determination)				YES
5.	Particip	pation in Inter-laboratory crosscheck program:		YES
6.		rable laboratory (field) capability nent (which tests):		NO

7. Additional testing capability in the fixed laboratory

CENTRAL EUROPE PIPELINE SYSTEM

Country: THE NETHERLANDS (Laboratory of the Central Europe Pipeline System (CEPS))

Defensie Pijpleiding Organisatie (DPO) 1. Name of laboratory:

2. Point of contact and address: Ton Oosterlaken

D.P.O. Divisie Laboratorium

Postbus 715

NL-3171AA POORTUGAAL, The Netherlands

Phone: (+31) 10 506 15 18 Fax: (+31) 10 506 15 11

Email: t.Oosterlaken@dpo.mindef.nl

3. Capabilities

ć	Э.	Aviation Turbine Fuels Comment (for tests): Except: mercaptans and napthalenes	Testing level	A(-)
ŀ	ο.	Diesel Fuel Comment (for tests):	Testing level	NA
(С.	Automotive Gasoline Comment (for tests):	Testing level	NA
(d.	<u>Lubricant B-2 testing capabilities</u> Comment (for tests):		NO
4.	4. Laboratory accreditation B-1 of F-34			YES
5.	Par ILS	ticipation in Inter-laboratory crosscheck program:		YES
6. Deployable laboratory (field) capability Comment (which tests):			NO	

7. Additional testing capability in the fixed laboratory

CENTRAL EUROPE PIPELINE SYSTEM

Country: **GERMANY** (Laboratory of the Central Europe Pipeline System (CEPS))

1. Name of laboratory: Fernleitungs-Betriebsgesellschaft mbH, Betriebsservice Idar-

Oberstein, Zentrallabor

2. Point of contact and address: Pickard Stephanie

Hohlstrasse 12

D-55743 IDAR OBERSTEIN, Germany

Phone: (+49) 6781 206 145 Fax: (+49) 6781 206 139 Email: io.labor@fbg.de

3. Capabilities

a. Aviation Turbine Fuels Testing level A(+)
Comment (for tests):

FAME GC/MS and BOCLE test method

b. <u>Diesel Fuel</u> Testing level A(-)

Comment (for tests):

Except CFPP oxidation stability, cetane number, lubricity, carbon residue, ash content, FAME

c. <u>Automotive Gasoline</u> Testing level B2(-)

Comment (for tests):

Except oxidation stability, vapor pressure

d. <u>Lubricant B-2 testing capabilities</u> NO

Comment (for tests):

4. Laboratory accreditation YES

5. Participation in Inter-laboratory crosscheck program: YES

IIS and FAM

6. Deployable laboratory (field) capability NO

Comment (which tests):

7. Additional testing capability in the fixed laboratory

Water content, quantitative for Aviation Turbine Engine Fuel and Diesel Fuels Lubricity/Bocle for Aviation Turbine Engine Fuel

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1. Name of laboratory:					
2. Point of contact and address:					
Phone:					
Fax:					
Email:					
3. Capabilities					
		1. (5. (5. (6.			
a. Aviation Turbine Fuels	Testing level	A / B1 / B2 / C			
Comment (for tests):					
b. Diesel Fuel	Tooting lovel	A / B1 / B2 / C			
Comment (for tests):	Testing level	A/BI/BZ/C			
Comment (for tests).					
c. Automotive Gasoline	Testing level	A / B1 / B2 / C			
Comment (for tests):	rooming lovel	717 517 527 6			
d. Lubricant B-2 testing capabilities		YES / NO			
Comment (for tests):		1			
4. Laboratory accreditation		YES / NO			
		T			
5. Participation in Inter-laboratory crosscheck program:		YES / NO			
C. Dawleyahla lahayatawy (field) canability		VEC / NO			
6. Deployable laboratory (field) capability Comment (which tests):		YES / NO			
Comment (which tests).					
7. Additional testing capability in the fixed laboratory					
7. Additional tooting department in the fixed laboratory					

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