



REPUBLIC OF SERBIA MINISTRY OF INTERIOR



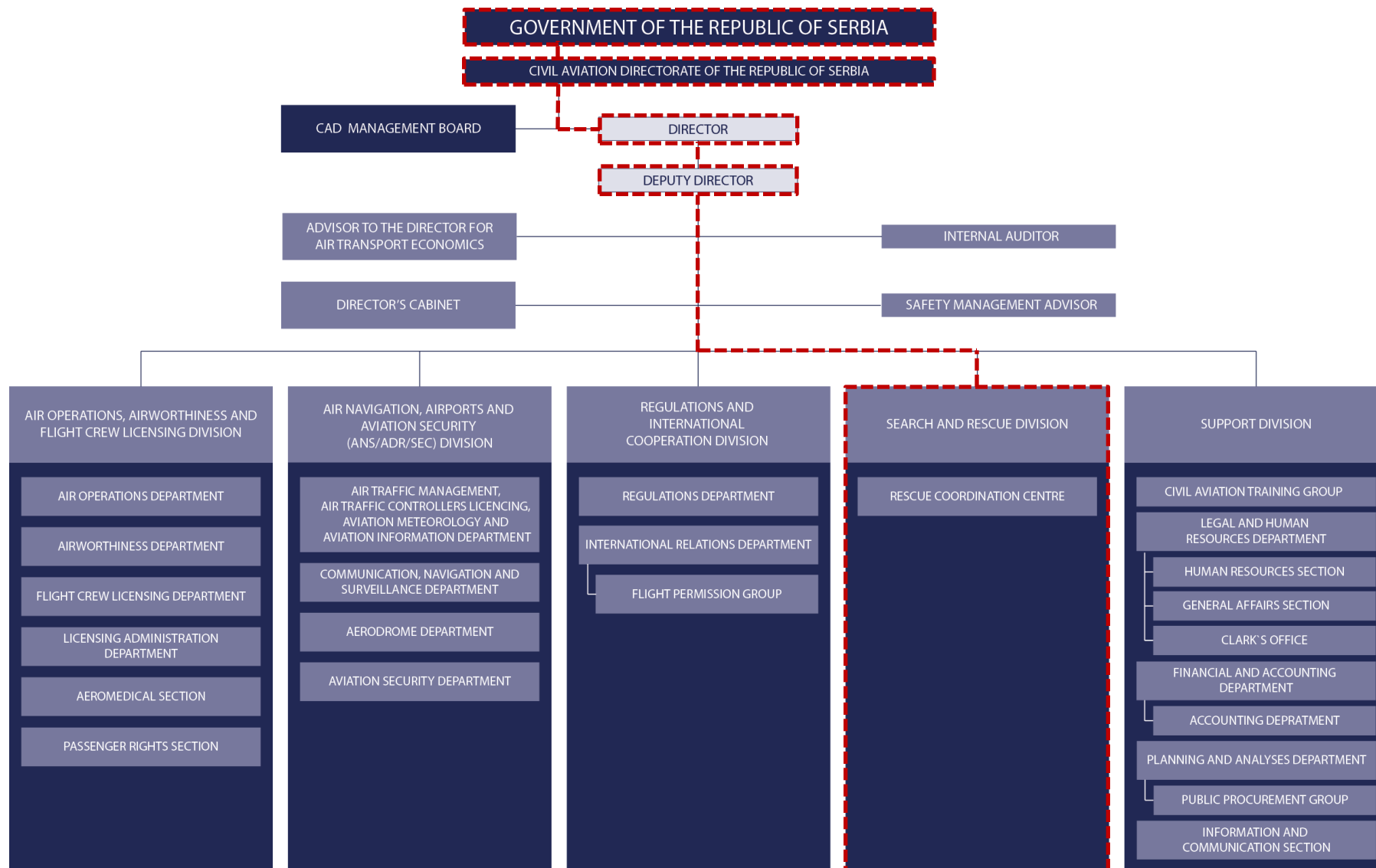
— SEARCH AND RESCUE —



BELGRADE, September 2019.



ORGANIZATION OF SAR SERVICE IN THE REPUBLIC OF SERBIA



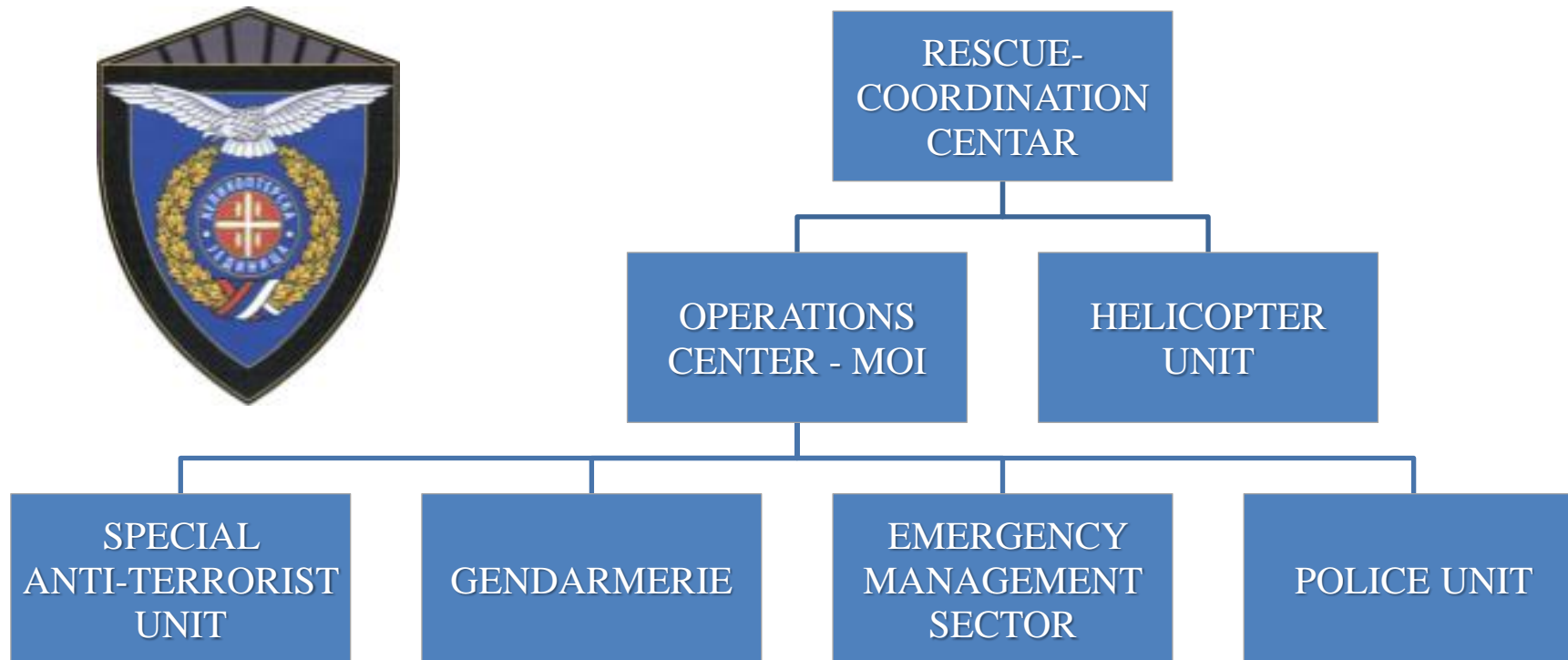


TERRITORY COVERAGE OF SAR SERVICE





LINE OF ENGAGEMENT OF MOI FOR **SAR** SERVICE





HELICOPTER UNIT OF THE MINISTRY OF INTERIOR OF THE REPUBLIC OF SERBIA



- Helicopter Unit is an Air Support unit of the Serbian Police.
- Its purpose is to provide aerial Surveillance, Reconnaissance, Border Patrol, VIP Transport, MEDEVAC, **Search And Rescue** and aerial Firefighting.
- On duty 24/7,
- 17 helicopters,
- 13 Pilots (ATPL IFR Holder),
- 12 Internal Hoist operators,
- 6 External Hoist operators,
- 12 Bambi Bucket operators,
- 4 EOS FLIR operators,
- PART145 Maintenance Organisation with 22 Certified Maintenance Technicians.



HELICOPTER UNIT OF THE MOI

– HELICOPTER FLEET –



Gazelle
SA-341/342 x5



Bell
206B-3 x4



Airbus
H145M x4



Agusta Bell
AB-212 x3



Sikorsky
S76B x1



In service from 2022.

Airbus
Super Puma x3



CURRENT SAR CAPABILITIES



- At this time MoI's Helicopter Unit for SAR missions uses three Agusta Bell AB-212, one Bell 206B-3 and three new Airbus H145M helicopters (fourth Airbus H145M will be in service from next february).
- All of MoI's Agusta Bell AB-212 helicopters can be fitted with Internal hoist device as well as with Stretchers and First Responders Medical Kit.





CURRENT SAR CAPABILITIES



- All of MoI's Airbus H145M helicopters can be fitted with External hoist device.
- One of MoI's AB-212 helicopters, for SAR purposes, is equipped with Goodrich Internal hoist device (272kg/76m), Cargo hook, Down rope device, Boeing Spectralab Nightsun SX-16 Searchlight with usable range of 1600 m and SAR Direction Finder Rhotheta RT-600/Becker DF-517.
- One of MoI Bell 206B helicopters is equipped with Nightscreamer Searchlight and SAR Direction Finder Rhotheta RT-600/Becker DF-517.





CURRENT SAR CAPABILITIES

– AIRBUS H145M –



- The H145M is a medium-sized twin engine multirole helicopter capable of performing a broad mission spectrum from Special Operations, Transport, SAR, CASEVAC/MEDEVAC.
- Within minutes the aircraft can be reconfigured from troop transport with seats to a SAR mission with rescue hoist and stretchers or Special Ops with rope down device or armed support and ballistic protection.
- As reference, the US Armed Forces are operating the H145M predecessor - the EC145 - as the UH-72A Lakota in the roles of Transport, VIP, MEDEVAC, Reconnaissance, SAR, Border Patrol, Law Enforcement Support, Counter-Drug, Test Pilot Training, Tactical Combat Training replacing the aging fleet of UH-1 and OH-58 aircraft.
- With the installed Helionix suite, pilot experience enhanced assistance thanks to the most advanced 4-axis digital AFCS with innovative upper modes expanding the aircraft capabilities in particular in low visibility conditions and over water, SAR, for both day and night missions, allowing their attention to be concentrated on the mission.



CURRENT SAR CAPABILITIES

– AIRBUS H145M –



MoI's H145M helicopters are equipped with an External hoist which is installed on right side on three helicopters and on the left side on one helicopter. The hoist installation is certified to meet Class D / Human External Cargo (HEC) requirements in accordance with EASA OPS SPA.HHO.110 and FAR 29.865. All four of MoI's H145M helicopters are equipped with appropriate fixed provision and can be fitted with an external hoist within minutes. Cable length is 90 m and permissible load (up/down) is up to 272 kg.





CURRENT SAR CAPABILITIES

– AIRBUS H145M –



MoI's H145M helicopters are equipped with Human External Cargo (HEC) EASA certified Dual Cargo Hook System (with Weighing System) which allows lifting and transport of external loads up to 1,600 kg for single hook operation or 800 kg for dual hook operation.

All crew members (pilots and operators) already received “Hoist and Load Hook Training” at AIRBUS Helicopters Training center in Manching, during 2019.

In purpose of observation of cargo hook, hoist and/or rope down devices MoI's H145M helicopters are equipped with upgraded External Multi-Purpose Camera.





CURRENT SAR CAPABILITIES

– AIRBUS H145M –



MoI's H145M helicopters are equipped with enhanced version of fully EASA certified External Rope Down Device, with an electrical load release system, which can be installed on either side of the helicopter.

The external rope down device allows the operator to perform different type of missions e.g.: Fast roping, Rappelling, Fix or variable rope evacuation and rescue, External cargo operations, Power line maintenance.

Depend of retracted or extended position maximum loads are up to 270 kg, with 2.5 g-factor allowed.





CURRENT SAR CAPABILITIES

– AIRBUS H145M –



Patrol/SAR MoI's H145M helicopter is equipped with Direction Finder DF935-12 (Chelton). The direction finder DF935-12 is a wide band direction finder developed for military, paramilitary, police and SAR missions with an integral synthesized receiver covering the frequency range 30-470 MHz together with 5 guard receivers to monitor predefined distress frequencies. COSPAS/SARSAT transmissions can be received and decoded. Direction Finder is connected with FMS and Moving Map System.





CURRENT SAR CAPABILITIES

– AIRBUS H145M –



Patrol/SAR MoI's H145M helicopter is equipped with digital electro-optical system Star Safire 380HDc manufactured by FLIR Systems.

MoI's SAFIRE 380HDc configuration includes: infrared (IR), day-camera and short wave infrared (SWIR) sensors, laser pointer, laser illuminator, laser range finder, autotracker, georeference system, EOS operator workstation with 22" full HD monitor and DVR. SAFIRE 380HDc is slaved with searchlight A800 Trakka.





CURRENT SAR CAPABILITIES

– AIRBUS H145M –



Patrol/SAR MoI's H145M helicopter is equipped with the remote controlled, steerable searchlight A800 Trakka which can be used for SAR operations as well as for night aerial surveillance and patrol. The high-intensity 800W short arc xenon lamp searchlight which is optimal for short and mid range is mounted forward on the left hand side of the helicopter. It will be slaved with FLIR Star Safire 380HDc EOS.

All MoI's H145M helicopters are equipped with 400 W visible and 200 W infra-red (IR) search and landing light.





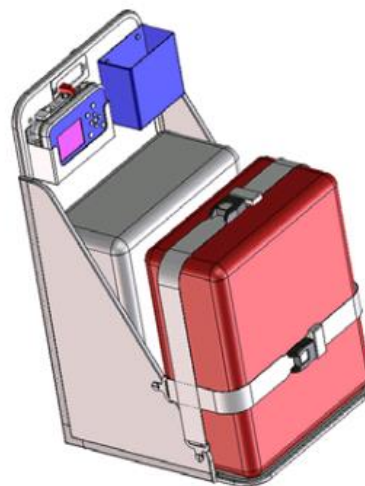
CURRENT SAR CAPABILITIES

– AIRBUS H145M –



Utility/MED MoI's H145M helicopter is equipped with Disaster Management Kit. The "quick conversion" Disaster Management Kit is a modular system for disaster missions. It provides transport capability for two stretcher patients (NACA I-VI) positioned in the longitudinal (flight) direction, accompanied by two medical crew - seated on standard helicopter seats. Installation can be performed by maintenance staff according to the installation manual in about 15 minutes.

Main features: 2 foldable stretchers, Patient monitoring & defibrillator device, 2 medical backbags, 3L oxygen bottle, EASA STC.





CURRENT SAR CAPABILITIES

– AIRBUS H145M –





CURRENT SAR CAPABILITIES

– AIRBUS H145M – AGUSTA BELL AB-212 –



For NVG aided night operations, MoD's H145M and AB-212 helicopters lighting is modified so that the instruments and the control panels still remain clearly visible to the naked eye (without goggles, for VFR and IFR operation), and such that the NVG image quality is not degraded. Four formation lights are installed on the H145M helicopter thus enabling tactical formation flying at night.

Crew members are equipped with latest generation aviator white phosphor Night Vision Goggles manufactured by Harris Corporation – USA.





CURRENT SAR CAPABILITIES

– AIRBUS H145M –



All of MoI's H145M helicopters are also equipped with:

- CMA-9000 Flight Management System with SAR modes,
- Honeywell RDR2000 Color Weather Radar,
- EuroAvionics Moving Map System EuroNav VII,
- Helicopter Terrain Awareness and Warning System,
- Health and Usage Monitoring System,
- Cockpit Voice and Flight Data Recorder,
- Cable Cutter System,
- Axnes PNG Wireless Intercom,
- Tactical Motorola TETRA Radio,
- Two AM/FM multi-band Rohde & Schwarz radios,
- Radar altimeters...



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— **S**EARCH **A**ND **R**ESCUE —

