AVIATOR COMPANY LTD.

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Thin Gann Gyun Township, Yangon, Myanmar.

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Email skyaviatorcompany@gmail.com

Date : 05th August, 2019
Ref : SKY / 0841 /2019

Office of Commander-in-Chief (Air)
Nay Pyi Taw
Republic of the Union of Myanmar

Sub : Presentation of Mi 24P Helicopter Upgrade System

Dear Sirs,

Attached herewith we are pleased to submit the presentation of Mi-24P helicopter upgrade system current situation (using by Russia Air Force).

If MAF interest, JSC Russia Helicopter can make the presentation and explain to MAF delegation (leader by CNC air) at during the MAKS Airshow 2019.

Our company is exclusive local representation of JSC Russia Helicopter for Myanmar. Please see the attached power of Attorney from JSC "Russian Helicopter" to SKY AVIATOR CO., LTD.

Thank you for your active cooperation.

Yours faithfully,

Kyaw Min Oo
Managing Director

ВЕРТОЛЕТЫ РОССИИ

RUSSIAN HELICOPTERS

Акционерное общество «Вертолеты России» (АО «Вертолеты России»)

Доверенность
Power of Attorney
No. RH-369

Москва 14 мая 2018 года

Акционерное общество «Вертолеты России» (АО «Вертолеты России»), далее – «Общество», являющееся юридическим лицом, учрежденным и действующим по законам Российской Федерации, ОГРН 1077746003334, ИНН7731559044, с местом нахождения по адресу: г.Москва, в лице Генерального директора Богинского Андрея Ивановича, действующего на основании устава Общества, настоящей доверенностью уполномочивает

компанию «SKY AVIATOR CO., LTD» (Республика Союз Мьянма), зарегистрированную по адресу: Republic of the Union of Myanmar, Yangon, South Okkalapa Township NO.204/2, 14/1 Ward Myin Thar (11) St.,

представлять интересы Общества в рамках проведения маркетинговых мероприятий по послепродажному обслуживанию вертолетов Ми-17-1В, Ми-17В-5 и Ми-24/35 на территории Республики Союз Мьянма среди государственных структур с правом ведения переговоров, представления презентационных и иных рекламных материалов.

Настоящая доверенность не предоставляет указанному лицу права на подписание от имени Общества документов и/или совершение действий, которые могут прямо или косвенно повлечь возникновение у Общества финансовых, имущественных или иных обязательств, включая будущие обязательства.

Настоящая доверенность выдана сроком по 31.12.2019 (включительно) без права передоверия полномочий по ней третьим лицам.

Moscow 14 May 2018

Joint Stock Company "Russian Helicopters" (JSC "Russian Helicopters"), hereinafter referred to as the "Company", a legal entity, established and acting under the laws of the Russian Federation, OGRN 1077746003334, INN 7731559044, having its registered office in Moscow, represented by Andrey Boginskiy, Director General, acting on the basis of the Charter,

hereby authorizes

SKY AVIATOR CO., LTD (Republic of the Union of Myanmar), located at Republic of the Union of Myanmar, Yangon, South Okkalapa Township NO.204/2, 14/1 Ward Myin Thar (11) St.,

to represent the interests of the Company within the framework of marketing activities for after-sales support of Mi-17-1V, Mi-17V-5 and Mi-24/35 helicopters in the territory of the Republic of the Union of Myanmar for state governmental institutions with the right to conduct negotiations and to submit presentation materials or other types of marketing materials.

This power of attorney grants SKY AVIATOR CO., LTD no right to sign any documents or take actions on behalf of the Company that may directly or indirectly entail financial, estate or other liabilities, including future obligations, for the Company.

This power of attorney is executed without the right of substitution and is valid until 31 December 2019 (inclusive).

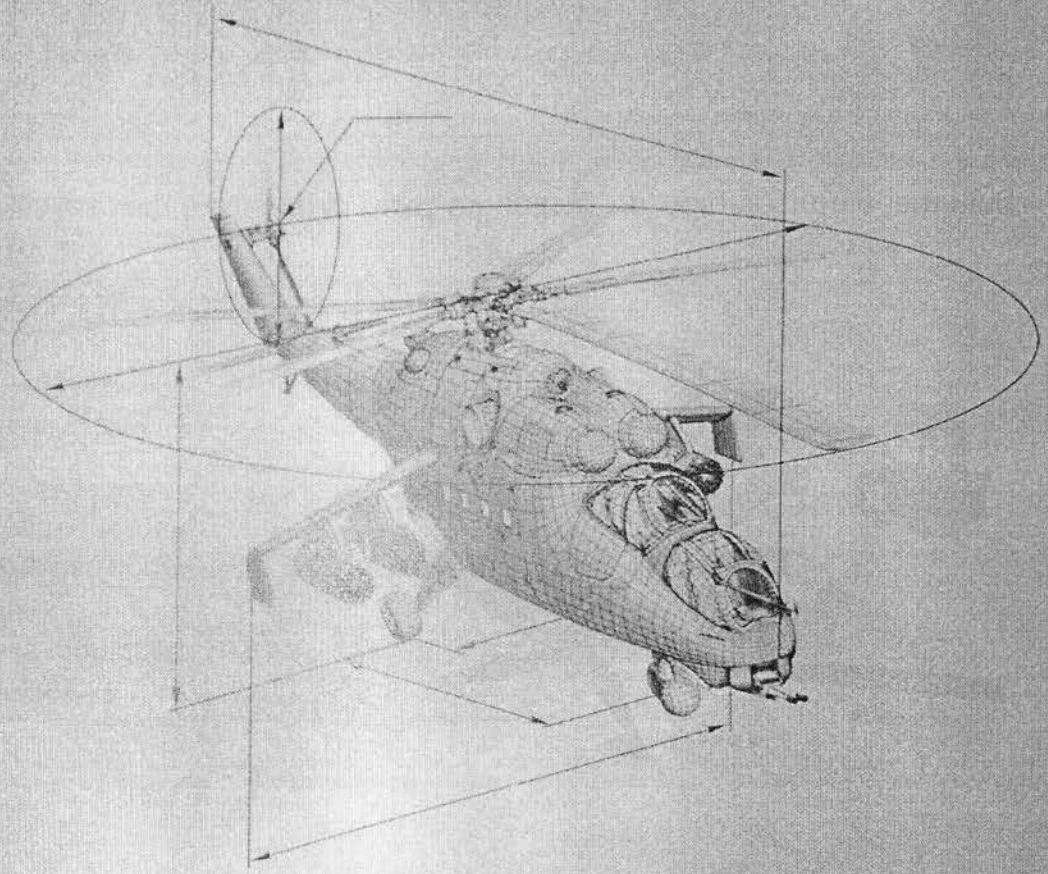
Генеральный директор **А.И.Богинский**

Director General **Andrey Boginskiy**

Upgrade of Mi-24 type helicopters

List of equipment for installation

- NAT301A Intercom System
- KN53 navigation system
- KN63 distance measurement equipment
- GTN750H GPS navigation system
- SN3500 indicator
- Night vision goggles
- Radio station R-863M1
- VPPF-1A landing light

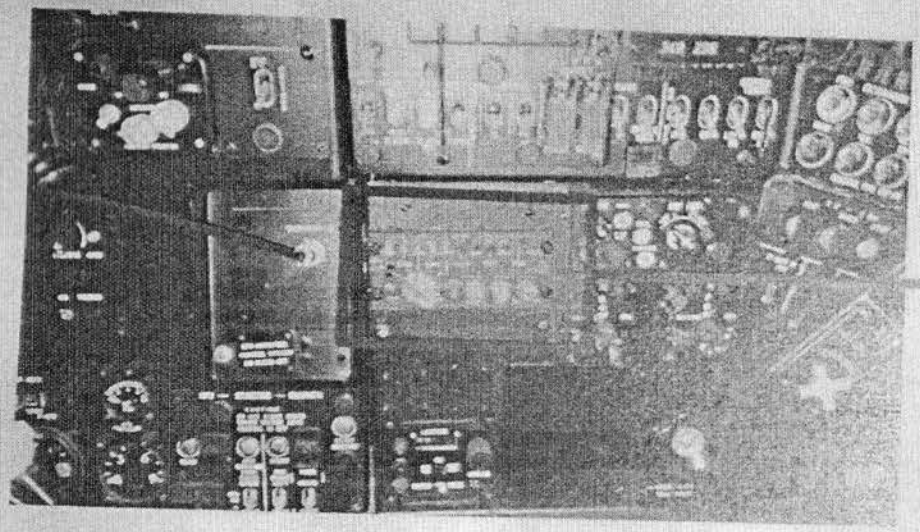


Upgrade programs for Mi-24 type helicopters ensures:

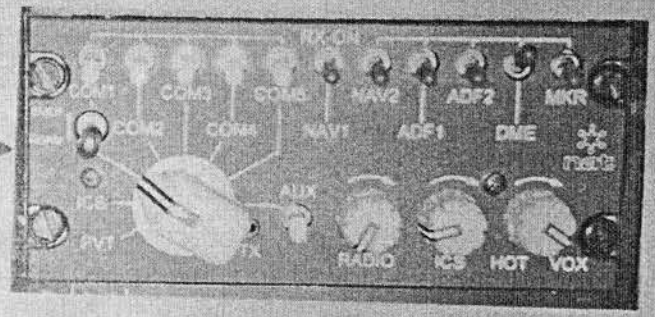
1. Navigation and communication systems improvement;
2. Number of options increase;
3. Survivability of the helicopter in combat conditions increase.

Upgrade of Mi-24 type helicopters

Installation of NAT301A Intercom System (Cobham)



NAT301A



Short description:

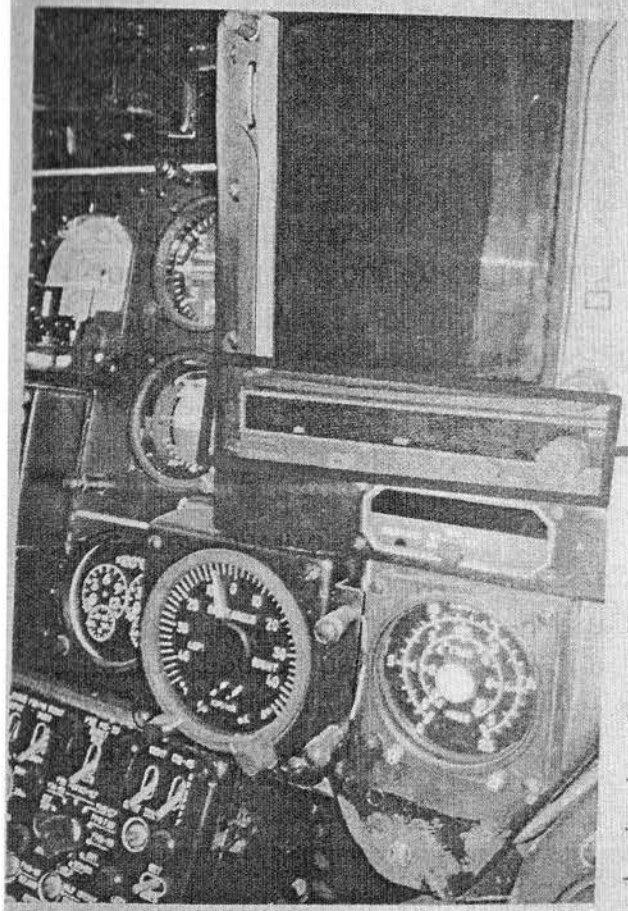
To improve noise immunity, reduce noise, ensure high-quality internal communication, the installation of the NAT301A intercom system is introduced. NAT310A replaces the outdated intercom system SPU-8.

Advantages:

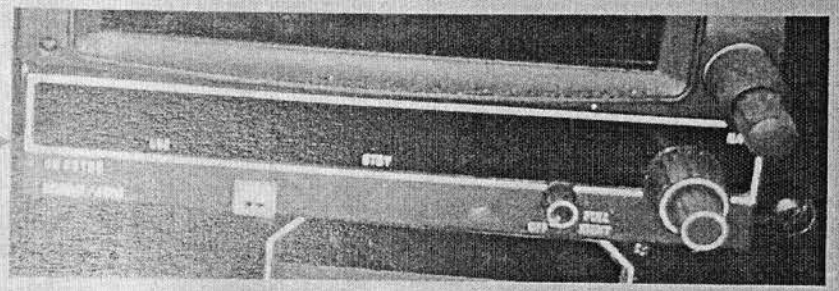
- modern element base;
- high reliability (time between failures 22,000 h);
- effective noise reduction system;
- built-in power amplifier;
- separate volume control (internal, external and loud-speaker communication).

Upgrade of Mi-24 type helicopters

Installation of the KN53 navigation system



KN53



Short description:

The navigation receiver KN 53 is an electronic navigational system that provides crew with information for performing navigation in the navigational mode by VOR beacon signals and by approaching the ILS course-glide beacon signals.

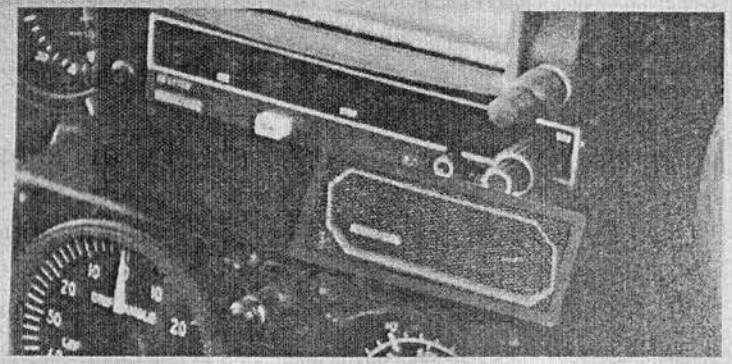
The navigation receiver KN 53 works in conjugation with the following equipment:

- indicators SN3500 (2 units);
- converters KN72 (2 units);
- antennas: course glide CI-205 (2 units) and diplexer CI-1125

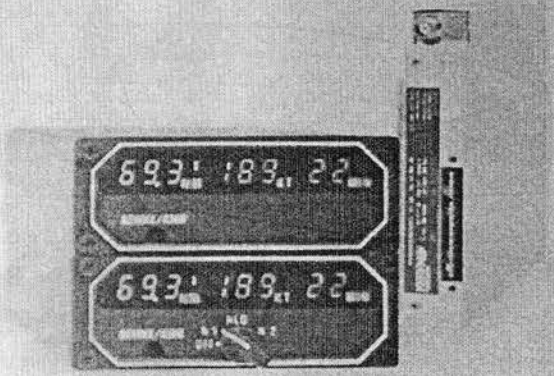
Upgrade of Mi-24 type helicopters

Installation of the KN63 distance measurement equipment

Indicator KDI 573



Indicator KDI 573 and DME unit KN 63



Short description:

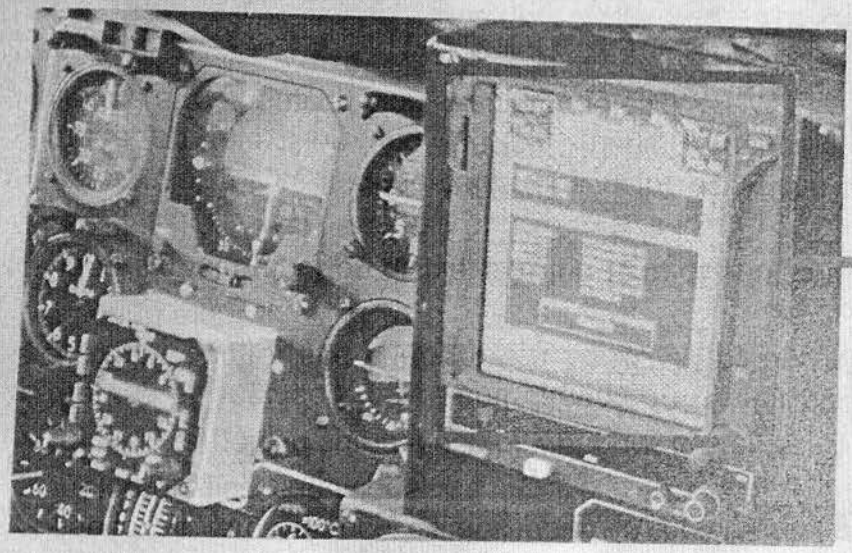
The distance measurements equipment KN 63 with the indicator KDI 572 is designed for measuring and displaying the inclined range when working with DME ground beacons and identifying the selected beacon with providing information to the indicator KDI 572 and KDI 573 of range, ground speed and flight time to the point .

The KN 63 kit includes:

- DME unit KN 63;
- KDI 572 indicator;
- KDI 573 auxiliary indicator;
- CI-105 antenna.

Upgrade of Mi-24 type helicopters

Installation of GTN750H GPS navigation system



GTN750H

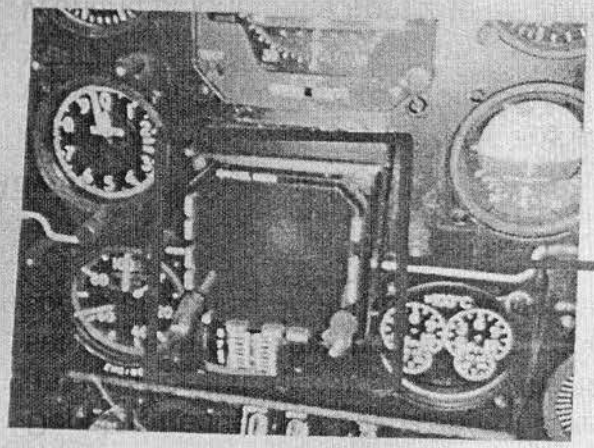
Short description:

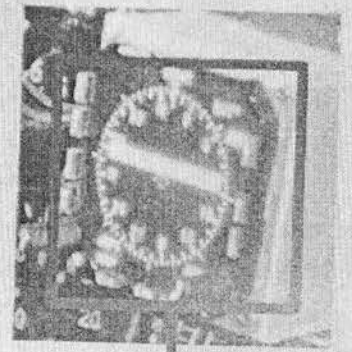
The GTN 750N navigation system is a GPS / SBAS (satellite-based differential correction system) equipment designed to determine the coordinates of a helicopter's position. The equipment operates using an existing database and receives signals from satellites.

The system provides a solution for navigational tasks, is designed to work with an aeronautical database, with flight routes, display the position of the aircraft on an electronic map, display navigation parameters and solve flight optimization tasks.

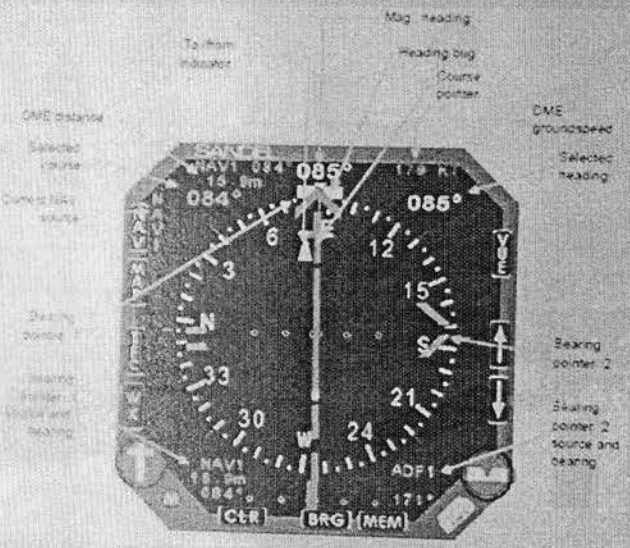
Upgrade of Mi-24 type helicopters

Installation of SN3500 indicator





SN3500



Short description:

The SN 3500 has two independent bearing indicators, which function is the same way as traditional radio magnetic indicators (RMI). The arrow of each pointer shows the bearing on the source of the navigation data. The end of the arrow of each pointer shows the bearing from the source of the navigation data. Any pointer is activated from any navigation source interfaced with SN3500. When GPS is selected as the source of the bearing pointer, the bearing indicator shows the bearing and distance to the current active waypoint of the route.

Upgrade of Mi-24 type helicopters

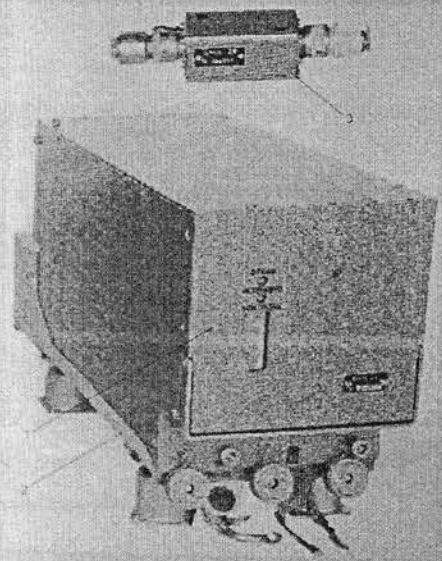
Installation of the radio station R-863M1

Short description:

In order to improve the quality of the radio communication, the installation of VHF/UHF R-863M1 radio station is introduced in place of the obsolete radio stations R-863, Karat (Yadro).

The VHF/UHF radio station R-863M1 is designed to provide helicopters with radio communication, for transmission and reception of telecode information in the mode of frequency telegraphy.

R-863M1



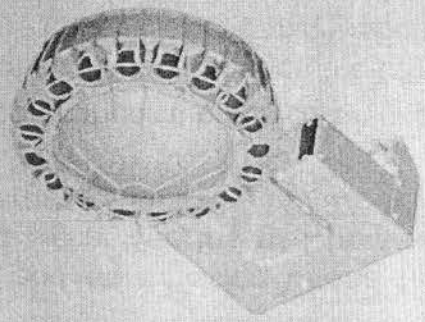
Advantage:

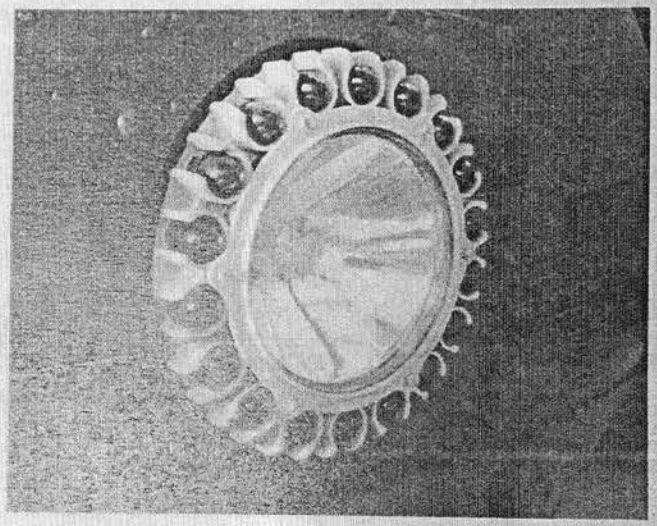
- improving the quality of radio communications.
- dimensions, connecting parameters are completely interchangeable with previous P-863.
- increased service life limit;
- improved mass-dimensional parameters.

Upgrade of Mi-24 type helicopters

Installation of a VPPF-1A landing light

Helicopter landing light





Short description:

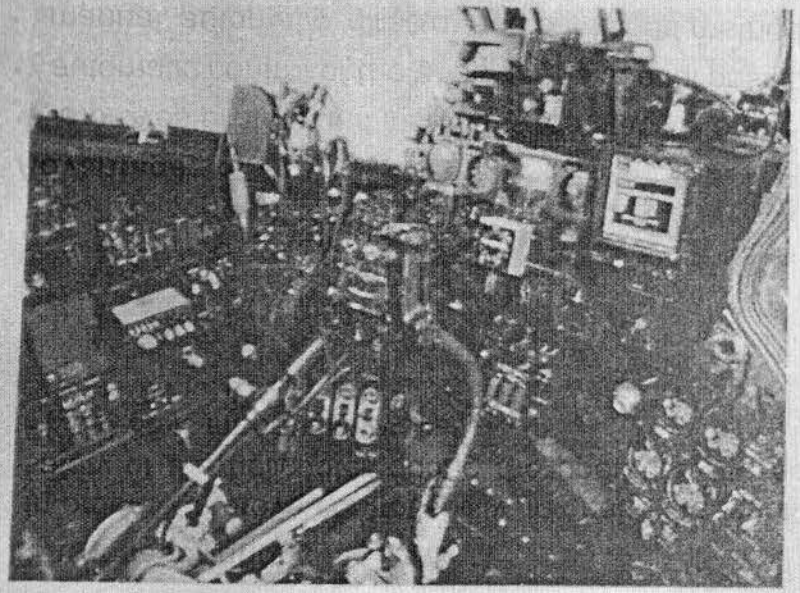
The VPPF-1A light is designed to illuminate the terrain when searching a landing pad and illuminate the area during taxiing, takeoff and landing in the absence of ground lighting in the dark during the visible wavelength range without using night vision goggles and in the infrared wavelength range with the use of NVG.

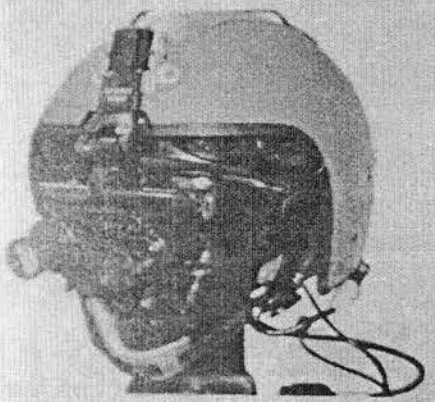
Advantages:

- Two modes of operation:
  - «Visible»
  - «Hidden»
- Range of visibility when working with NVG in the "Hidden" mode is not less than 400 meters.
- Time of continuous work in the "Hidden" mode is up to 1 hour.

Upgrade of Mi-24 type helicopters

Adaptation of internal and external lights to night vision goggles





Short description:

Night vision goggles allow the crew to operate in conditions of night illumination of the terrain under illumination not less than 5x10-4 lux, at a range of 2 to 4 km: to detect and recognize the boundaries of trees, pillars of communication lines, motor vehicles and other objects.

Advantages:

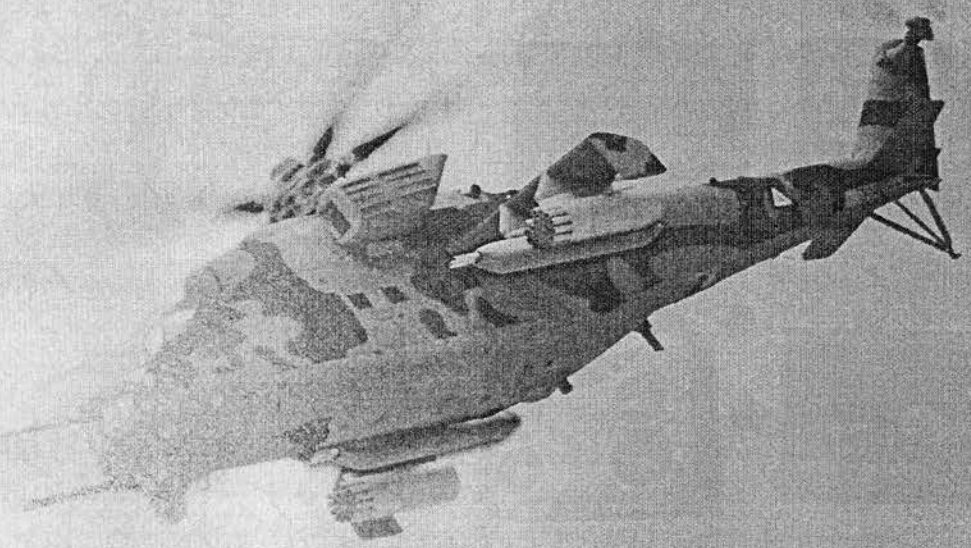
Equipping the helicopter with night vision goggles provides the ability to perform at night:

- takeoff;
- hovering;
- piloting at altitudes from 50 m to 200 m with visual control of the underlying surface;
- approach and landings on the unprepared airfields.

Upgrade of Mi-24 type helicopters

Basic upgrade

- Complex navigation and electronic display KNEI
- Autopilot PKV-8-35
- Radio-communication set KSS
- Battery 20NKBN-28-T
- Doppler
- Survey-sighting system OPS-24N-1L
- Chin-mounted NPPU-23 turret with a twin-barrel GSh-23L automatic cannon
- Installation of UV-26M flare dispenser



Additional options by request

- PRESIDENT-S
- Missiles "Attack"

RUSSIAN HELICOPTERS

Upgrade of Mi-24 type helicopters

Complex navigation and electronic display KNEI

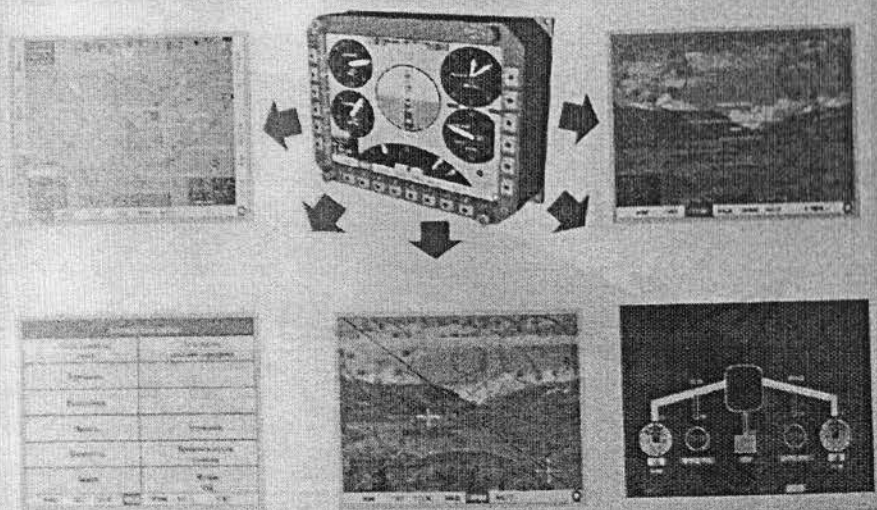
SB readiness 4th quarter 2020

KNEI

Short description:

The complex is designed to process information from helicopter systems and equipment and issue the following pages to the MFI:

1. Page Navigation
2. Page Survey-sighting
3. Page Piloting
4. Page Database
5. Page sighting



Advantage:

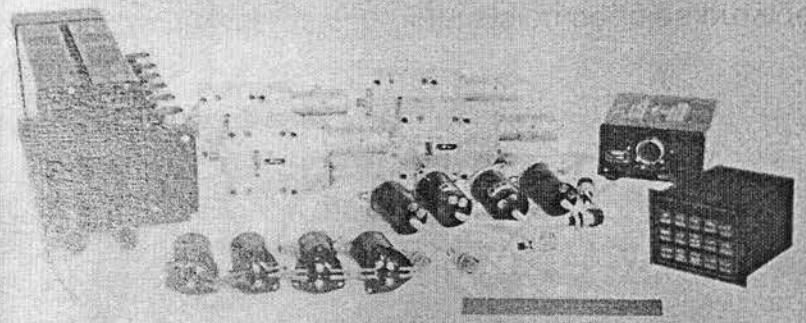
- Save and storage in the non-volatile memory of the coordinates, date and time of flight over navigation points;
- Storage in non-volatile memory of the electronic maps;
- Graphic display of the route traveled;
- Displays information about the failures of the equipment and interacting with the helicopter systems, and cautions for limit values for the pitch, roll and altitude.

Upgrade of Mi-24 type helicopters

Installation of PKV-8-35 autopilot

SB readiness 4th quarter 2021

PKV-8-35



Short description:

In order to improve controllability, increase the stability and safety of the helicopter during the operation the autopilot PKV-8-35 is introduced.

Advantage:

- improves piloting and increases the stability of the helicopter;
- automatic control of the angular and spatial position of the helicopter in all flight modes;
- manual, automatic, director and combined methods of piloting are reduced and simplified.

Upgrade of Mi-24 type helicopters

Radio-communication set (KSS)

SB readiness 4th quarter 2020

Short description:

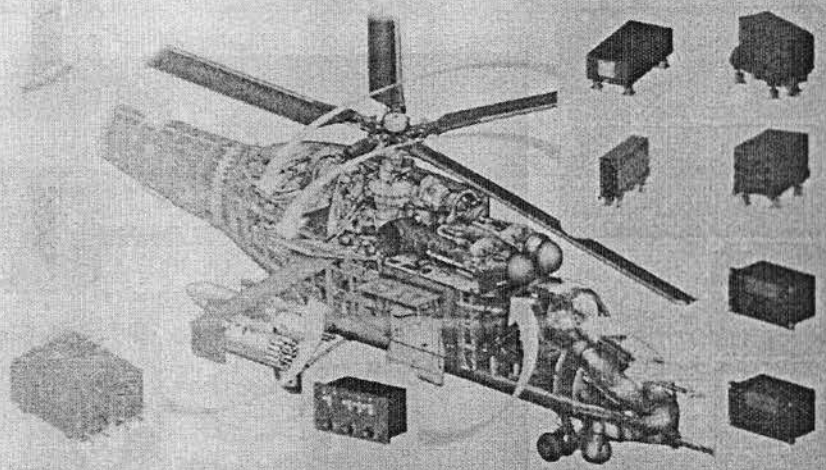
VHF radio "Prima-DMV" provide:

- reception and transmission the amplitude modulated signal in the frequency range 118.000 - 136.975 MHz with a grid interval of operating frequencies of 8.33 kHz and 25 kHz;
- reception and transmission of the frequency and phase-modulated signal with the grid frequency of 25 kHz in the frequency range: 100,000 - 149.975 MHz; 156,000 - 173.975 MHz; 220,000 - 399.975 MHz;
- 40 pre-programmed communication channels;
- 24 hours of continuous work on the transmission of the cycle 1: 3 (1 min - transmission, 3 min - reception).

HF radio station Prima-KV provides:

- reception and transmission of a signal in the frequency range from 2,000 to 29,9999 MHz with a frequency grid interval of 100 Hz;
- 40 pre-programmed communication channels;
- 24 hours of continuous work on the transmission of the cycle 1: 3 (1 min - transmission, 3 min - reception).

KSS



Upgrade of Mi-24 type helicopters

Replacement of nickel-cadmium batteries 20NKBN-28-T with lead-acid batteries 12CAM-28

SB readiness 4th quarter 2020

20NKBN-28-T

Short description:

In order to improve operational performance of Mi-24, modification of battery compartment for replacement of nickel-cadmium batteries 20NKBN-28-T with batteries 12CAM-28, is performed:

Advantages:

- Increased operating temperature range;
- Expanded battery charge preservation time;
- Enhanced running hours (cycles).

Upgrade of Mi-24 type helicopters

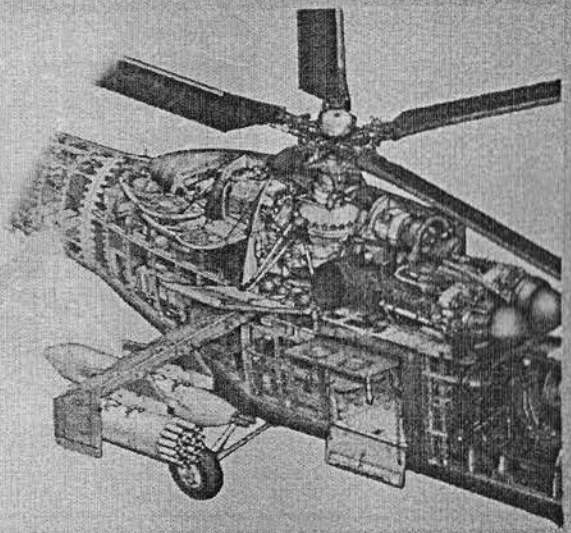
Doppler velocity and drift angle meter

SB readiness 4th quarter 2020

Short description:

It is intended for automatic continuous measurement of the Doppler frequency shift along the three beams of the antenna for further calculation in the KNEI-24E-1 avionics set of the three components of the vector of speed, ground speed and angle of drift of the helicopter.

Doppler



Advantage:

- Doppler works when flying over any kind of underlying surface (land, sea, sand, ice), regardless of optical visibility and time of year;
- Working height range from 2 to 6500 m;
- Time of continuous work up to 6 hours.

Upgrade of Mi-24 type helicopters

Survey-sighting system OPS-24N-1L

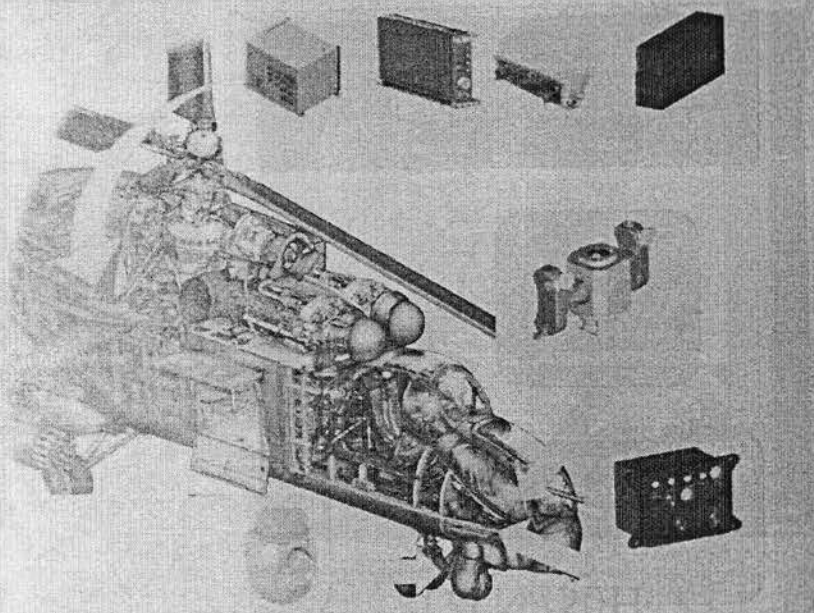
SB readiness 4th quarter 2020

Short description:

Survey-sighting system OPS-24N-1L provides:

- review the underlying surface, search, detection, identification of objects and various purposes, including low-speed air targets such as helicopter in simple and difficult meteorological conditions;
- tracking targets in combat use of weapons systems;
- the use of unguided rocket and cannon armament by a pilot at night, control and firing from a NNPU-23 by an operator day and night;
- video signal output on displays in the form of a full television signal;
- observation of behind-the-cabin space for using the terrain image on television and thermal imaging channels when piloting at night using night-vision goggles

OPS-24N-1L



Upgrade of Mi-24 type helicopters

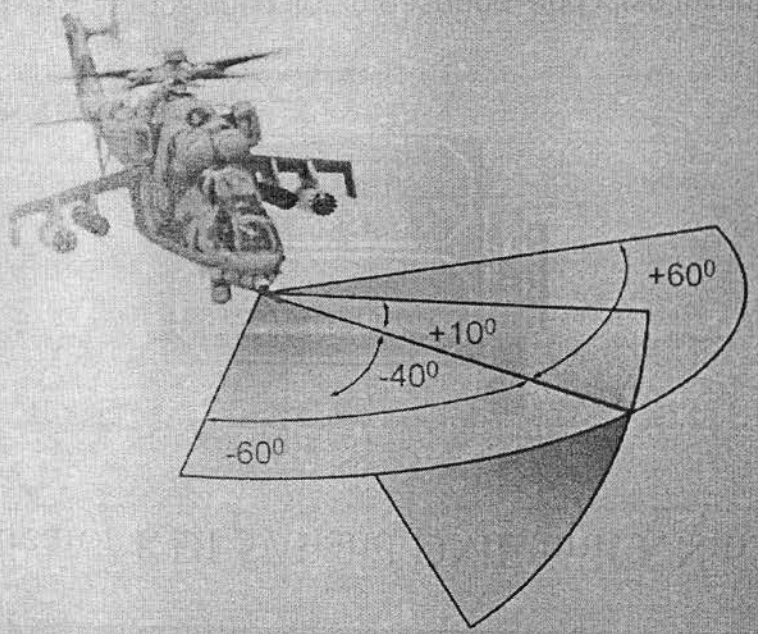
Chin-mounted NPPU-23 turret with a twin-barrel GSh-23L automatic cannon

SB readiness 4th quarter 2020

Main technical specifications

Cannon type	GSh-23L
Caliber	23 mm
Range of fire	Up to 3 km
Rate of fire	3000-3400 rounds/min
Muzzle velocity	715 m/sec
Allowance of ammunition	450 rounds
Type of missile	OFZ-23-AM-GSh OFZT-23-AM-GSh BZT-23-AM-GSh

NPPU-23



Upgrade of Mi-24 type helicopters

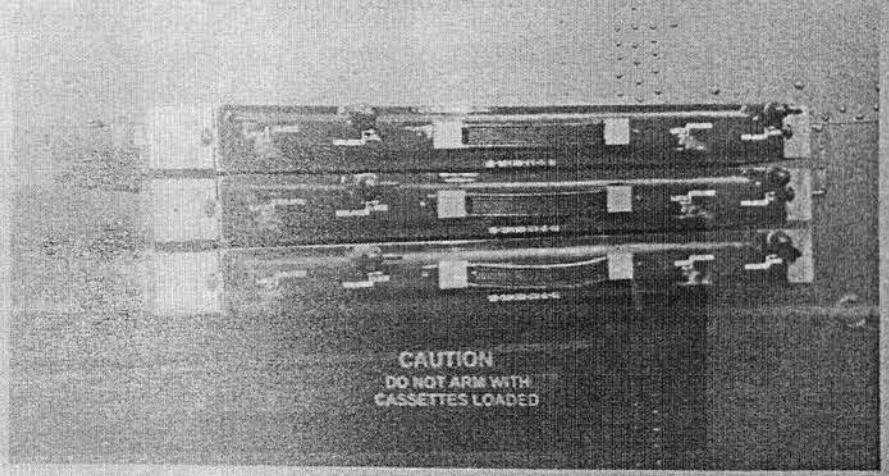
Installation of UV-26M flare dispenser

Short description:

In order to protect the helicopter from missile weapons with thermal homing heads, a device for discharge of 26 mm flares is proposed to be installed instead of ASO-2B.

Dispense up to 6x32 false flares from the left, right or together from two sides.

UV-26M



Advantage:

- output digital indication of the current charging - on the control panel or on-board indicator;
- the possibility of built-in control with the definition of product malfunction.

Upgrade of Mi-24 type helicopters

Guided missile complex "Attack" (additional design work)

SB readiness By request

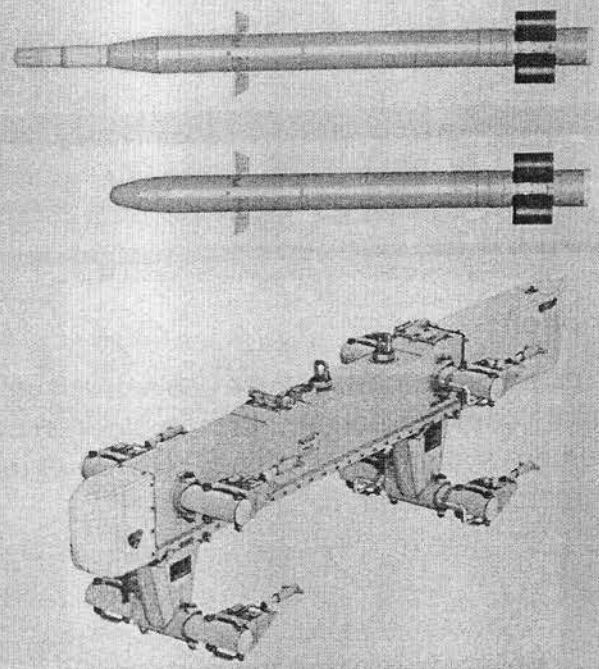
Short description:

Designed to destroy modern armored vehicles (including those equipped with dynamic protection), armored targets, small ground targets, low-flying low-speed aerial targets, enemy manpower, guided missiles with a laser guidance system.

Main technical specifications

Caliber	130 mm
Defeat range	Up to 5.8 km
Armor penetration behind dynamic protection	800 mm
Type of warhead	Tandem cumulative, high explosive
Allowance of ammunition	Up to 8 pcs

Missiles "Attack"

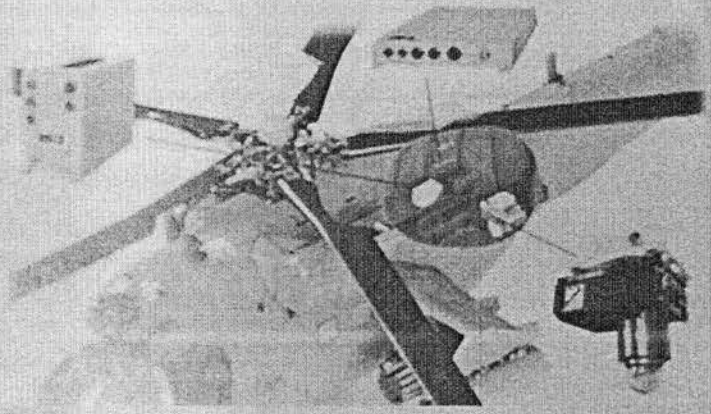


Upgrade of Mi-24 type helicopters

The installation of the PRESIDENT-S onboard defense complex with a laser protection station (additional design work)

SB readiness By request

PRESIDENT-S



Short description:

In order to provide protection against missile attacks and increase combat survivability, the helicopter is equipped with the PRESIDENT-S onboard defense complex.

The President-S product is intended to provide individual protection of the helicopter against missiles with thermal homing heads.

PRESIDENT-S provides:

- warning the crew about the fact of enemy missiles launching;
- advice to the crew on the anti-missile maneuver;
- disruption of the attack of guided enemy missiles with the thermal head by setting up optoelectronic jamming, and also dispensing flares.

ВЕРТОЛЕТЫ РОССИИ

Спасибо за внимание!