Mi-8 Quick Reference Kneeboard

Startup Checklist

- **Rotor Brake** - DOWN
- **Engine Condition Levers** - MIDDLE
- **Battery 1&2** - ON
- **Breakers** - UP
- **Fire Extinguisher** - ON
- **Fire Circuits Knob** - OFF
- **L/R & Service Fuel Pumps** - ON
- **L/R Shutoff Valves** - ON(UP)
- **APU Start Mode** - START
- **APU** - START (Hold 2-3 Seconds)
- **APU Temp** - STABLE
- **115V Inverter** - MAN
- **Engine Start Selector** - UPWIND ENGINE
- **Engine Start Mode** - START
- **Engine Start Button** - START (Hold 2-3 Seconds)
- **Respective (L/R) Engine Stop Lever** - FORWARD
- **Engine RPM 70-75%** - REPEAT FOR OPPOSITE ENGINE
- **Parking Brake** - SET
- **Main Rotor RPM 40-75%** - THROTTLE UP
- **APU** - OFF
- **Generators 1&2** - ON
- **Rectifiers 1/2/3** - ON
- **115V and 35V Inverters** - AUTO
- **Right Triangle Panel**
    - **Doppler** - ON
    - **Comp Sys** - ON
    - **Right Att Ind** - ON
    - **Fan** - ON
- **Left Triangle Panel**
    - **Fan** - ON
    - **Left Att Ind** - ON
    - **Gyro Cut Out** - ON
    - **Audio Warning** - ON

    - **Pitch Lim Sys** - ON
- **Radio/ICS Switch** - RADIO
- **Pitch Roll AP** - ON
- **Radar Alt** - ON & SET

Shutdown Checklist

- **Parking Brake** - SET
- **Wheel Chocks** - PLACED
- **Autopilot** - DISENGAGED
- **Lights** - OFF
- **Left Triangle Panel**
    - **Fan** - OFF
    - **Left Att Ind** - OFF
    - **Gyro Cut Out** - OFF
    - **Audio Warning** - OFF
- **Right Triangle Panel**
    - **Doppler** - OFF
    - **Comp Sys** - OFF
    - **Right Att Ind** - OFF
    - **Fan** - OFF
- **Rectifiers 1/2/3** - OFF
- **Generators 1&2** - OFF
- **Throttle** - FULL LOW
- **Idle** - 2 Minutes
- **Engine Stop Levers** - OFF
- **After 50 Seconds** - ROTOR BRAKE (<20% RPM)
- **Fire Extinguisher** - OFF
- **L/R Shutoff Valves** - OFF(DOWN)
- **L/R & Service Fuel Pumps** - OFF
- **36V Transformer** - OFF
- **115V and 35V Inverters** - OFF
- **Radar Alt** - OFF
- **Parking Brake** - RELEASE
- **DC Selector Knob** - OFF
- **Battery 1&2** - OFF

Weapon Systems

- **B-8V20 Rocket Pods**
  - 20x S-8 Rockets
- **UPK-23-25 Gun Pod**
  - 2x 23mm Cannons
- **GUV-8700 Gun Pod**
  - Variant 1: 1x Automatic Grenade Launcher
  - Variant 2: 1x 12.7 mm + 2x 7.62 mm Gatling Guns
- **FAB-100/250/500**
  - High Explosive Bombs

Weapon Setup

- **All Weapons**
  - **Weapon System Breakers** - ON
  - **Master Arm** - ON
- **B-8V20 Rocket Pod**
  - **Payload Management Selector** - POD 1
  - **Desired Burst Quantity** - SET
  - **Pod Station Selector** - AUTO
  - **UPK/PKT/RS Switch** - DOWN
  - **PUS Fire Control Button** - HOLD 1-2 Seconds
  - **Main Weapons Power** - ON
  - **Fire** - Weapon Release Button
- **UPK-23-25 Gun Pod**
  - **Payload Management Selector** - POD 1
  - **UPK/PKT/RS Switch** - UP
  - **Main Weapons Power** - ON
  - **Fire** - Weapon Release Button
- **GUV-8700 Gun Pod (Variant 1)**
  - **Payload Management Selector** - GUN(GUV)
  - **3-Way Mode Switch** - 800 (Grenades Only)
    - **800** - 30 mm grenade launcher
    - **800/624** - 12.7 mm mg pods or 30 mm grenade
    - **622** - 7.62 mm machine gun
  - **GUV 800 Switch** - UP
  - **Main Weapons Power** - ON
  - **Fire** - Weapon Release Button
- **GUV-8700 Gun Pod (Variant 2)**

    - **Payload Management Selector** - GUN(GUV)
    - **3-Way Mode Switch**
        - **800/624** - 12.7 mm mg pods or 30 mm grenade
        - **622** - 7.62 mm machine gun
    - **Main Weapons Power** - ON
    - **Fire** - Weapon Release Button
- **FAB-100/250/500**
    - ***Load Bombs Outside First**
    - **ESRB Control Box** - OFF
    - **Set Release Knob** - I
    - **ESRB Control Box** - ON
    - **Payload Management Selector** - II
    - **Main Weapons Power** - ON
    - **Bomb Arming Switch** - ON
    - **Drop** - Bomb Release Button

Useful Formulas

Speed/Time/Distance

- **Ground Speed required (knots)=** (Distance/Minutes)x 60
- **Time of Flight (mins)=** (Distance/Ground Speed) x 60

Fuel/Endurance

- **Bingo Fuel (lbs)=** (Time of Flight/60) x Fuel Burn (lb/hr)
- **Objective Time (mins)=** ([Total Fuel − Bingo] ÷ Fuel lb/hr) × 60

Altitude/Elevation Conversion

- **Feet to Meters-** [ft]/3.281= Meters
- **Meters to Feet-** [m]x 3.281= Feet

Latitude/Longitude Conversion

- **DDD-MM-SS.SS to DDD-MM.MMM**
    - **SS.SS/60= .MMM**
- **DDD-MM.MMM to DDD-MM-SS.SS**
    - **.MMM x 60= SS.SS**

Feet to Meters Conversion Table

m	1	5	10	100	300	500	800	1000	1500	2000	5000
ft	3.28	16.4	32.8	328	984	1640	2625	3280	4921	6562	16404

Performance DATA Table

Normal takeoff weight	11100 kg
Maximum takeoff weight	13000 kg
Cargo capacity:	
normal	2000 kg
maximum (with full main fuel tanks)	4000 kg
troops	21 – 24
medical stretchers	12
Maximum level flight speed at altitudes 0 – 1000 m:	
normal takeoff weight	250 kph
maximum takeoff weight	230 kph
Cruising speed at altitudes 0 – 1000 m:	
normal takeoff weight	220–240 kph
maximum takeoff weight	205–215 kph
Hover ceiling with normal takeoff weight OGE (standard atmosphere)	3960 m
Service ceiling:	
normal takeoff weight	5500 m
maximum takeoff weight	3900 m
Time required to reach altitude at nominal engine power and ideal climbing speed (120 kph), anti-iciding system disabled:	
normal takeoff weight	
1000 m	$1.8^{+0,5}$ min
3000 m	6^{+1} min
4000 m	$9.5+^{2}$ min
maximum takeoff weight	
1000 m	$2.4^{+0,5}$ min
3000 m	10.9^{+1} min
Service range at an altitude of 500 m and cruising speed with full main fuel tanks before 5% fuel reserve reached:	
cargo load 2117 kg	495 km
cargo load 4000 kg	465 km
one full internal auxiliary fuel tank	725 km
two full internal auxiliary fuel tanks (ferry range)	950 km

9-Line Assistant

1. **IP/BP:____-** Initial Point or Battle Point
2. **Heading:____Offset:L____R____-** HDG(mag) from IP to TGT
3. **Distance:____ -** From IP to BP given in NM
4. **Target Elevation:____-** In feet above MSL
5. **Target Description:____-** Detailed description of area
6. **Target Location:____-** UTM/MGRS/LatLong/Navaid/Visual
7. **Mark Type:____Code:____LTL:____-** LTL= Laser Target Line
8. **Friendlies:____-** Location of nearest friendlies
9. **Egress:____-** Direction to depart after attack

- **Remarks:____**
  - Troops in contact or danger close
  - Airspace coordination: final attack heading (FAH) or altitude restrictions
  - Threat
  - SEAD support in effect
  - Active gun target lines
  - Ordnance Requested
  - Hazards
  - Weather
- **TOT:____ or TTT:____**
  - Time Over Target- Specific time ordnance will hit target
  - Time To Target- Countdown timer started with “HACK!”

Creator: Hayden, Credit to Dmitriy Kozyrev for Additional Pages