



### FIRE & RESCUE DEPARTMENT OF MALAYSIA (FRDM)

### FIRE FIGHTING, DISASTER RESPONSE AND SEARCH & RESCUE (SAR) IN MALAYSIA

### 30<sup>th</sup> October 2018

#### Presenter : **PPjB SYUFA'AT BIN KAMARON** Head of the Branch Rescue Team Management Operation & Rescue Division









# **SCOPE OF PRESENTATION**



1.0 LAW, REGULATION & DIRECTIVE

2.0 FIRE FIGHTING, DISASTER RESPONSE & SAR

**3.0 TURN-OUT NORMS** 

**4.0 CONCLUSION** 

**5.0 FIRE AND RESCUE DEPARTMENT OVERALL STATISTIC** 

6.0 THE RECENT SUCCESSFUL SAR



A BANGA DAN PENTUANA MALAYSIA

The following regulations, play a very important role for FRDM to carry out it's function :

- 1. Federal Constitution;
- 2. Fire Service Act 1988 (Act 341); &
- 3. National Security Council Directive No. 20.





# **Federal Constitution**

### Ninth Schedule [Articles 74, 77]

### Legislative Lists List I—Federal List

 26. Subject to item 9a of the Concurrent List, prevention and extinguishment of fire, including fire services and fire brigades.

### List III—Concurrent List

 9a. Fire safety measures and fire precautions in the construction and maintenance of buildings



![](_page_3_Picture_8.jpeg)

![](_page_4_Picture_0.jpeg)

# Fire Service Act 1988 (Act 341)

- Section 2 "calamity" an occurrence by which life or property is or likely to be endangered.
- Section 5 Duties of fire and rescue department.
- Section 19 powers of fire officers in emergencies not involving fire.

![](_page_4_Figure_5.jpeg)

![](_page_4_Picture_6.jpeg)

# National Security Council Directive No. 20

Clause 17 – role and function rescue agency on disaster scene
 Fire and Rescue Department of Malaysia (FRDM) – Refer
 Attachment L

![](_page_5_Picture_2.jpeg)

 FRDM were directly involved in taking part of SAR in the previous disasters happen in this Malaysia.

![](_page_5_Picture_4.jpeg)

![](_page_5_Picture_5.jpeg)

# 2.0 FIRE FIGHTING, DISASTER RESPONSE & SEARCH RESCUE (SAR)

![](_page_6_Picture_1.jpeg)

FRDM received a total of 444,611 emergency call from 2014 until 2018 (September) or 6,538 calls/month;

Search & Rescue (218,855 calls); death total of 7,499
\*\*\*Drowning cases (2014-2017) = 1,745
\*\*\*Average body recovery = 36 bodies/month(48 months)

Fire Response (205,452 calls); death total of 632

# 2.0 FIRE FIGHTING, DISASTER RESPONSE & SEARCH RESCUE (SAR)

![](_page_7_Picture_1.jpeg)

Sasically, the implementation of the operations carried out by FRDM in dealing with Fire Fighting, Disaster Response and SAR are very identical in term of Standard Operation Procedures (SOP);

The Incident Command & System (ICS) must be used in dealing with normal incidents and during the disaster, to ensure that we could manage the situation with a proper manner and optimum resources;

It is very important to take into account all aspects of incident and disaster management such as the cycle of emergency, method and mechanism to be used during the operation.

![](_page_8_Figure_0.jpeg)

![](_page_9_Picture_0.jpeg)

# METHOD OF OPERATIONS FOR INCIDENT/DISASTER

![](_page_9_Picture_2.jpeg)

![](_page_9_Figure_3.jpeg)

![](_page_10_Picture_0.jpeg)

### Mechanism of Incident/Disaster Management Practice by FRDM

- 1. Incident Command System (ICS)
  - ✓ Single Command
  - ✓ Unified Command
- 2. National Security Council Directive No. 20
  - (Disaster Management)
- 3. Mutual of Understanding (MOU)
  - eg : The Royal Malaysian Police (Fire Investigation)

![](_page_10_Picture_9.jpeg)

![](_page_10_Picture_10.jpeg)

![](_page_10_Picture_11.jpeg)

![](_page_11_Figure_0.jpeg)

### Mechanism Incident / Disaster Management Practice by FRDM (cont...)

### 4. Inter Agency Collaboration

- Ministry of Health Malaysia
- The Royal Malaysian Police
- Malaysian Airport Berhad
- The Royal Malaysian NAVY
- Chemistry Department of Malaysia
- NADMA/SMART-Team members of INSARAG
- Atomic Energy Licensing Board (AELB)
- The Royal Malaysia Police
- Ministry of Foreign Affairs-National Authorities of Chemical Weapons Convention
- Southeast Asia Regional Centre for Counter Terrorism (SEARCCT)

![](_page_11_Picture_13.jpeg)

![](_page_11_Picture_14.jpeg)

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![](_page_11_Picture_16.jpeg)

![](_page_11_Picture_17.jpeg)

![](_page_12_Picture_0.jpeg)

### FRDM'S INCIDENT MANGEMENT (FIRE FIGHTING & SAR)

![](_page_12_Picture_2.jpeg)

![](_page_13_Picture_0.jpeg)

![](_page_14_Picture_0.jpeg)

![](_page_15_Picture_0.jpeg)

# **3.0 TURN-OUT NORMS**

![](_page_15_Picture_2.jpeg)

### 1)-Structure Fire Call (Building < 4 stories height)

- Two turn-out (2 x Fire & Rescue Tender)
- 1 x Emergency Medical Rescue Services (EMRS) Vehicle
- 1 x Turn Table Ladder/Aerial Ladder Platform

### 2)-Structure Fire Call (Building 5-10 stories height)

- Three turn-out (3 x Fire & Rescue Tender)
- 1 x Emergency Medical Rescue Services (EMRS) Vehicle
- 1 x Turn Table Ladder/Aerial Ladder Platform

![](_page_16_Picture_0.jpeg)

# 3.0 TURN-OUT NORMS (cont..)

# Real DAN PENTELNING

### 3)-Structure Fire Call (Building > 10 stories height)

- Three turn-out (3 x Fire & Rescue Tender)
- 1 x Emergency Medical Rescue Services (EMRS) Vehicle
- 1 x Turn Table Ladder/Aerial Ladder Platform
- 1 x Water Tanker

### 4)-Open Fire/Vehicle Fire

- One turn-out (1 x Fire & Rescue Tender)
- 1 x Emergency Medical Rescue Services (EMRS) Vehicle
- 1 x Hazmat team (if related)

![](_page_16_Picture_12.jpeg)

![](_page_17_Figure_0.jpeg)

# FRDM – ICS (SINGLE COMMAND) CONT..

![](_page_18_Picture_1.jpeg)

### **TASK/FUNCTION OF COMMAND STAFF**

#### (1)Incident Commander (IC)

- Senior Officer
- Leading the overall operation (Fire/SAR)
- Decision maker
- Establish command

#### (2)Safety Officer

- In charge of the rescuer safety
- In charge of the overall safety operation
- In charge of the incident area
- In charge of the crowd

#### (3)Information Officer

- FRDM's Public Relation
   Officer
- To organise information kits & press release
- To establish & manage the reporter
- To conduct press conference of the operation

#### (4)Liaison Officer

Represent IC & facilitate others
response agencies
To prepare debrief information of the on going operation
To assist IC in handling of
VIP/VVIP/stakeholder
visit

### FRDM – ICS (SINGLE COMMAND) CONT.. TASK/FUNCTION OF COMMAND STAFF

![](_page_19_Picture_1.jpeg)

#### (5) Operations

 In charge in managing the operation carry out by (giving orders & planning the tactical/strategy of the operation)

- Front liner commander
- In charge in coordinating the incident with FRDM's team/other supporting agencies

#### (6) Planning

- Data collecting
- To analyze
   data/operation
- To carry out speciality assistant with other related agencies
- To provide IAP documentation (Incident Action Plan)
- To provide supporting plan for the next operation plan

#### (7) Logistics

- To ensure & provide a sufficient manpower & logistics whenever necessary
- To provide communication plan
- To provide relief for the rescuer/victims
- To provide sufficient facilities at the incident area
- To provide transportation and medical facilities

#### (8) Finance & Administration

•Overall supervision on the operation in term of any cost involved during the operation

•Finance implication of the operation to the department

![](_page_20_Picture_0.jpeg)

### DISASTER RESPONSE (National Security Council Directive No. 20)

![](_page_20_Picture_2.jpeg)

### **Defination** :

"an incident which occur in a sudden manner and complex in its nature and that causes losses of lives, damages to property or natural environment and bring a deep effect to local activities. Such incident needs a management that involving extensive, resources, equipment, skills and man power from many agencies with an effective coordination, which is possibly demanding a complex action and would take a long time"

![](_page_21_Picture_0.jpeg)

# **DISASTER RESPONSE**

# Type of Disaster :

![](_page_21_Picture_3.jpeg)

Mother Nature Disaster

![](_page_21_Picture_5.jpeg)

**Industry Disaster** 

![](_page_21_Picture_7.jpeg)

Accident of Goods Transportation

![](_page_21_Picture_9.jpeg)

**Building Collapse** 

![](_page_21_Picture_11.jpeg)

![](_page_21_Picture_12.jpeg)

![](_page_21_Picture_13.jpeg)

**Special Structure Fire** 

![](_page_21_Figure_15.jpeg)

Dam Collapse

![](_page_21_Picture_17.jpeg)

**CBRNe** Accidents

![](_page_21_Picture_19.jpeg)

Haze

![](_page_21_Picture_21.jpeg)

Pandemic

![](_page_21_Picture_23.jpeg)

Other Disasters Declared by the Government

![](_page_21_Picture_25.jpeg)

![](_page_22_Picture_0.jpeg)

# **DISASTER RESPONSE** (Disaster Management Agencies)

![](_page_22_Picture_2.jpeg)

### Chairman **DISASTER MANAGEMENT COMMITTEE**

- Level III (National) : Minister appoint by Prime Minister
- : Level II (State)
  - Secretary of State Government

Level I (District) : District Officer (DO)

### COMMITTEE SECRETARIAT

![](_page_22_Picture_10.jpeg)

![](_page_22_Picture_11.jpeg)

![](_page_23_Picture_0.jpeg)

# DISASTER RESPONSE (Rescue/Supporting Agencies)

![](_page_23_Picture_2.jpeg)

![](_page_23_Picture_3.jpeg)

![](_page_24_Picture_0.jpeg)

# **5.0 CONCLUSION**

![](_page_24_Picture_2.jpeg)

- The main roles of the FRDM are similar in that we serve to save life and property injunction with one another. We response to major incidents that tailored to our normal responsibilities and the resources we possess.
- By having a very clear and strong jurisdiction of the law & regulations, we believe that more live can be saved during fire, search and rescue operations.

![](_page_25_Picture_0.jpeg)

![](_page_25_Picture_1.jpeg)

# 5.0 FIRE AND RESCUE DEPARTMENT OVERALL STATISTIC

![](_page_26_Picture_0.jpeg)

# FIRE STATIONS (FULLY OPERATION)

![](_page_26_Picture_2.jpeg)

Ref.	Category of Fire	Total	
	Station	(unit)	
1.	A	36	
2.	В	83	
3.	С	162	
4.	D	15	
	Total	296	
5.	Fire Station	386	
	(Volunteer Team)		
	Overall Total	682	

![](_page_27_Figure_0.jpeg)

![](_page_28_Picture_0.jpeg)

### MARINE VESSELS

![](_page_28_Picture_2.jpeg)

No.	Type of Vessel	Year Purchased	Ready for Operation	Capacity	Minimum Depth of Water to	Rem Rem MALAYSIA
					Operate	
1.	Aluminium Boat	1998,2006, 2009,2010 & 2014	479	1 crew + 9 passenger	1.0 – 1.5 meter	Speed = 15 knots unloaded Speed = 10 knots fully loaded
2	Pubbar Dingby Boat	1009	20	1 crew + 5		Speed = 15 knots unloaded
۷.	Rubber Dingny Boat	1990	28	passenger 2	1.5 – 2.0 meter	Speed = 10 knots fully loaded
2	Fibroglass Boat	2001	6	2 crew + 10		Speed = 20 knots unloaded
Э.	Tiblegiass boat	2001	0	passenger	1.5 – 2.0 meter	Speed = 15 knots fully loaded
4.	Fire Rescue Boat	2002	4	2 crew + 22 passenger	1.0 – 1.5 meter	Speed = 20 knots cruising Speed = 30 knots sprint Bange = 250 nautical miles
				$1 \operatorname{crow} + 2$	0 5 meter	Speed = $25$ knots unloaded
5.	Rescue Jetski GTX 4	2002	71	passenger	0.5 meter	Speed = 15 knots fully loaded
C	Koular Doot	2006	1 Г	2 crew + 6		Speed = 45 knots unloaded
б.	Keviar Boat	2006	15	passenger		Speed = 25 knots fully loaded
7	Amphibious Rigid Inflatable	2007, 2009 & 2015	14	2 crew+ 6	1.0 - 1.5 motor	Speed =
7.	Boat (Sealeg)			passenger	1.0 – 1.5 Meter	Speed = 10 km/hr on road

#### Jumlah Keseluruhan

![](_page_28_Picture_5.jpeg)

![](_page_28_Picture_6.jpeg)

![](_page_28_Picture_7.jpeg)

![](_page_28_Picture_8.jpeg)

![](_page_28_Picture_9.jpeg)

**BOT ALUMINIUM** 

AMFIBIA

**KEVLAR** 

**BOT FIBER** 

![](_page_29_Picture_0.jpeg)

## FRDM'S LAND LOGISTICS (ASSETS)

![](_page_29_Picture_2.jpeg)

No.	Asset	New (a)	Existing (b)	Tota (a)+ (
1.	Lori (carrier) 3 tonnes	50	115	165
2	Lori (carrier) 5 tonnes	50	25	75
3	SUV 4x4	20	9	29
4	Pick up 4x4	50	115	165
5.	Water tanker	100	30	130
6.	Fire Rescue Tender (FRT)	None	331	331
7.	Light Fire Rescue Tender (LFRT)	None	200	200
8.	Emergency Medical Rescue Services (EMRS)	200	2	202
9.	High Performance Pump Module (HPPM)	None	10	10
10.	Amphibious All Terrain Vehicle	20	-	20
11.	Turn Table Ladder (TTL) /Aerial	36	21	57

![](_page_29_Picture_4.jpeg)

![](_page_30_Figure_0.jpeg)

![](_page_31_Picture_1.jpeg)

Year/It	tem	2014	2015	2016	2017	2018
Total C	Call	99,830	82,600	92,307	86,982	82,892
False (	Call	1,004	683 455		350	293
Fire C	all	54,540	40,865	49,875	29,356	30,816
Search & Re	scue Call	42,713	39,101	40,402	54,884	41,755
Humanitarian S	ervices Call	1,574	1,951	1,575	2,392	10,028
Fire Incident	Death	139	153	107	165	68
	Injury	389	467	477	446	286
Rescue	Death	1,578	1,579	1,570	1,575	1,197
	Injury	5,450	5,548	6,041	7,730	5,887
Total Lost Estin	nation (RM)	2,786,626,239.29	4,397,832,131.95	2,866,742,974.85	5,211,971,591.16	3,076,594,554.79
Total Rescue Est	imation (RM)	24,525,833,022.76	29,454,486,568.95	35,816,919,206.54	50,967,220,058.39	21,144,715,491.05

![](_page_32_Picture_0.jpeg)

# FRDM'S SPECIAL FORCES

# BORRA DAN PENYE MALAYSIA

### **SPECIAL TEAM/UNIT**

1	Water Rescue Unit (PPDA)	527
2	Emergency Medical Response Services (EMRS)	1636
3	Hazmat	594
4	Special Tactical Operation Rescue Malaysia (STORM)	403
5	Special Air Services Unit (PASKUB)	55
6	MUST-Team	520
	3,735	

![](_page_32_Picture_5.jpeg)

![](_page_33_Picture_0.jpeg)

![](_page_33_Picture_1.jpeg)

# 6.0 THE RECENT SUCCESSFUL SAR CARRIED OUT BY FRDM

![](_page_34_Picture_0.jpeg)

kawasan peperangan...beginilah keadaan kawasan letupan mercun di Sund

![](_page_35_Picture_0.jpeg)

![](_page_35_Picture_1.jpeg)

### 48 DEATHS 1 INJURED

![](_page_35_Picture_3.jpeg)

![](_page_35_Picture_4.jpeg)

![](_page_35_Picture_5.jpeg)

HIGHLAND Towers menyembah bumi.

![](_page_36_Picture_0.jpeg)

![](_page_36_Picture_1.jpeg)

![](_page_36_Picture_2.jpeg)

![](_page_36_Picture_3.jpeg)

### 238 DEATHS 102 REPORTED MISSING

![](_page_37_Picture_0.jpeg)

### BANJIR LUMPUR POS DIPANG 29/08/1996

![](_page_37_Picture_2.jpeg)

![](_page_37_Picture_3.jpeg)

![](_page_37_Picture_4.jpeg)

![](_page_37_Picture_5.jpeg)

N

### 44 DEATHS 5 REPORTED MISSING

### JETTY COLLAPSED BUTTERWOTH P.PINANG 31/07/1998

![](_page_38_Picture_1.jpeg)

### 32 DEATHS 1674 INJURED

![](_page_38_Picture_3.jpeg)

![](_page_38_Picture_4.jpeg)

### LANDSLIDE BUKIT ANTARABANGSA 06/12/2008

![](_page_39_Picture_1.jpeg)

![](_page_39_Picture_2.jpeg)

![](_page_40_Figure_0.jpeg)

![](_page_41_Picture_0.jpeg)

![](_page_41_Picture_1.jpeg)

![](_page_42_Picture_0.jpeg)

# **6.0 CONCLUSION**

![](_page_42_Picture_2.jpeg)

- The main roles of the FRDM are similar in that we serve to save life and property injunction with one another. We response to major incidents that tailored to our normal responsibilities and the resources we possess.
- By having a very clear and strong jurisdiction of the law & regulations, we believe that more live can be saved during fire, search and rescue operations.

![](_page_43_Picture_0.jpeg)

![](_page_43_Picture_1.jpeg)

# **Thank You**