Overview of Emergency Observation in Sentinel Asia

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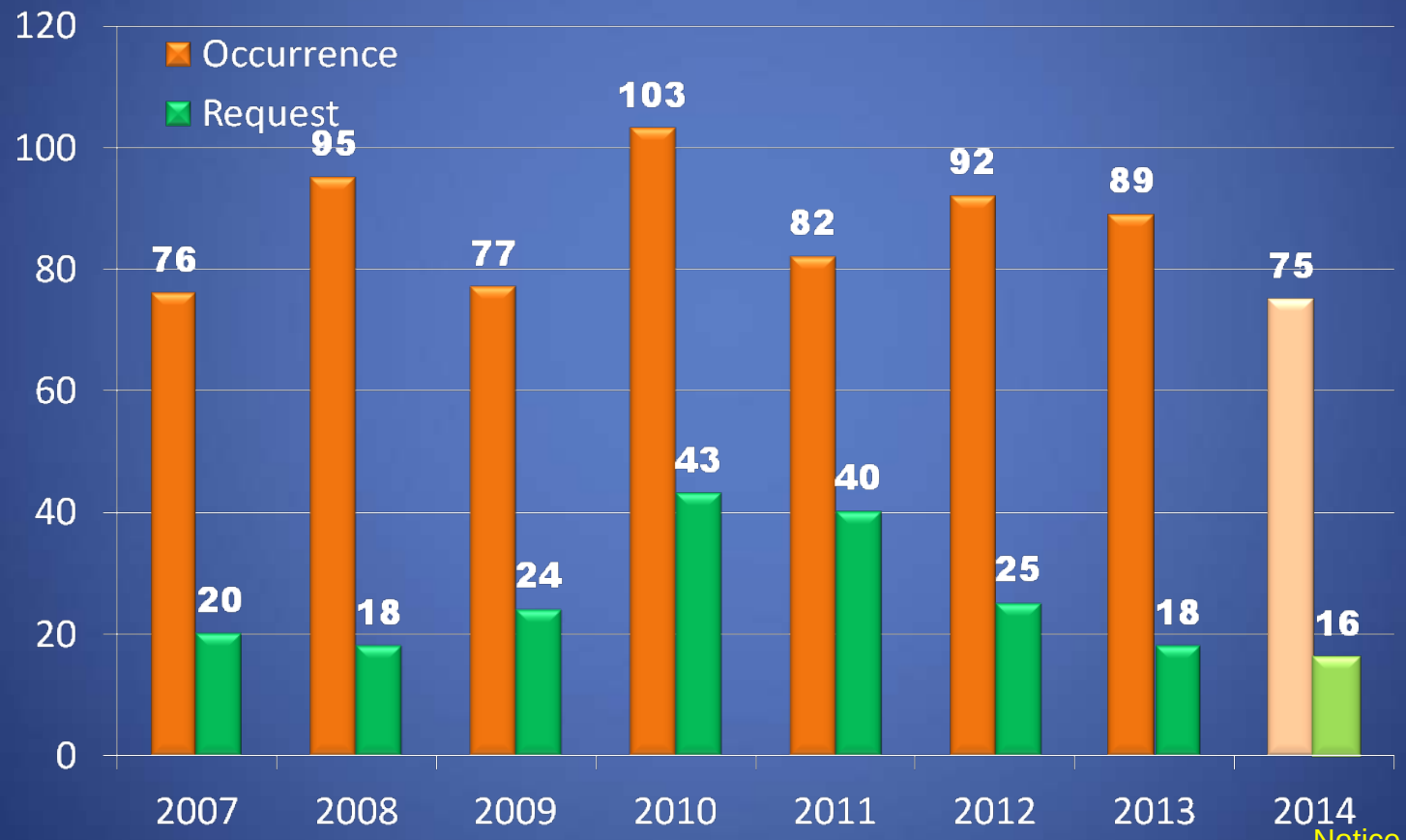
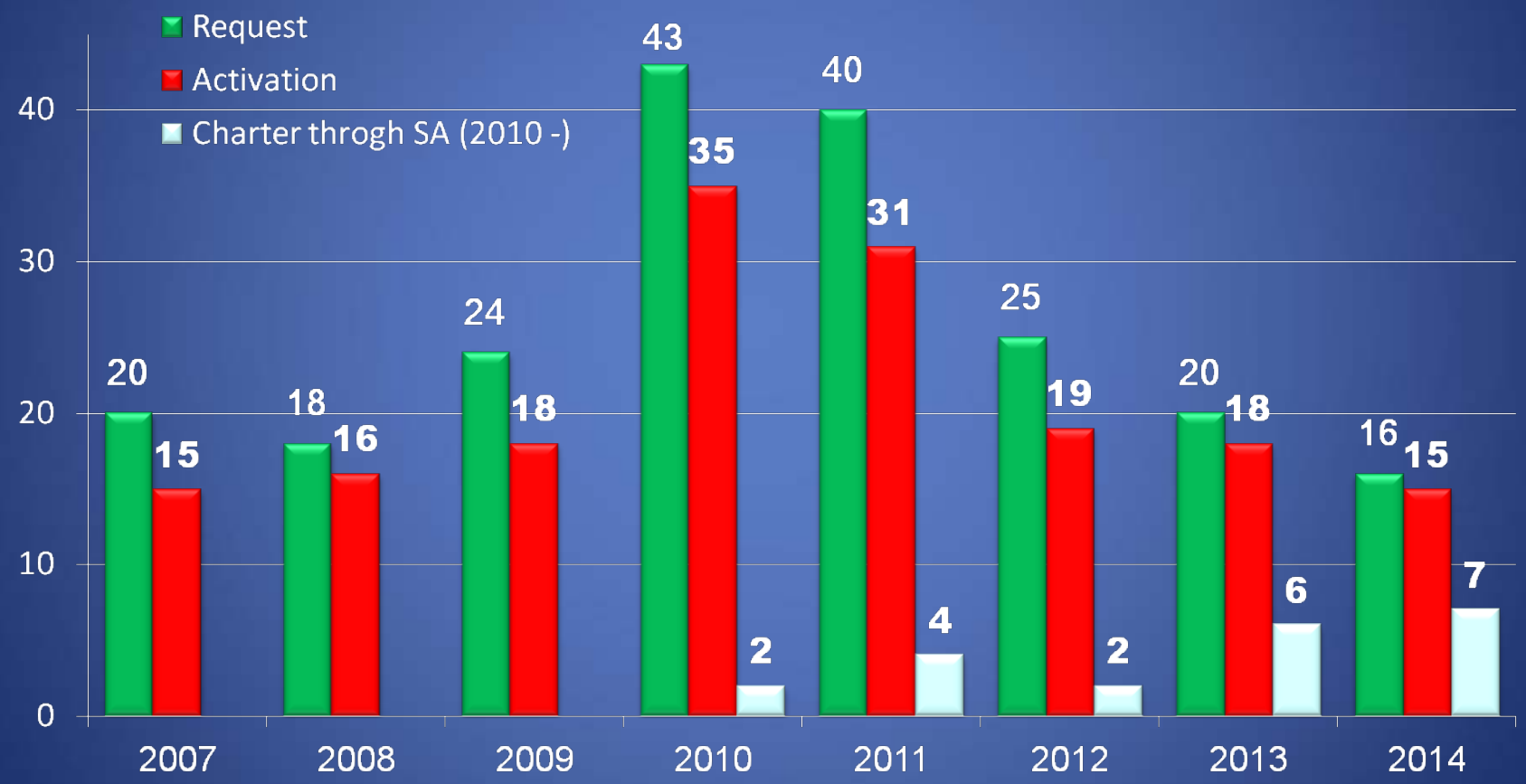
Changes in the number of EOR 2007-2014



Notice :
2014 (until October)

Changes in the number of emergency observation 2007-2014



Notice :
2014 (until October)

Implementation frequency of emergency observation in 2011-14

Year	Request	Action	Non Action	International Disaster Charter
Cf. 2011	40	31	9	4
2012	25	19	6	2
2013	20	18	2	6
2014	16	15	1	7

Notice : 2014 (until October)

Problem of emergency observation

- Satellites were non-action post disaster occurred.
- But archive data was provided.

Year	Inactive	Action	Inactive Ratio
Cf. 2011	5	31	16%
2012	4	19	21%
2013	5	18	28%
2014	1	15	7%

Emergency Observation in 2011

Country	Region	Type	Date	Implementation for Emergency						Requester	Analyzer
				JAXA	ISRO	KARI	GISTDA	NARL	Disaster Charter		
Australia	Queensland	Flood	2011/1/3	○			○	○		GA	
Sri Lanka	East part of Sri Lanka	Flood	2011/1/11	○				○		DMC	MODM
Brunei	Tutona	Flood	2011/1/21	○			○	○		SD	
Sri Lanka	North, North Central and Estern provinces	Flood	2011/2/3	○				○		DMC	ICIMOD
Philippines	Visayas and Mindanao	Flood	2011/2/3	○				○		PHIVOLCS	
NewZealand	Christchurch	Earthquake	2011/2/22	○				○		UNESCAP	CEA
Japan	East part of Honsyu Island	Earthquake	2011/3/11	○	○		○	○		JAXA	ISRO, CRISP, NARL
Myanmar	Northern part of Myanmar, Bear the border of China	Earthquake	2011/3/24	○			○	○		IGCEA	
Thailand	Nakornsritammarat	Flood	2011/3/26	○				○		GISTDA	
Kazakhstan	West Kazakhstan	Flood	2011/4/11	○				○		NCSRT	NCSRT
India	Tawang, Arunachal	Other	2011/4/30							ISRO	
Indonesia	Garut, West Java	Flash Flood	2011/5/7				○	○		LAPAN	AIT
Kyrgyzstan	Bishkek-Osh highway	Land slide	2011/5/12							CAIAG	
Tajikisitan	Northern part of Tajikistan	Flash Flood	2011/6/12	○				○		COES	AIT
Kazakhstan	in the mountains near the	Tornado	2011/5/17							NCSRT	
Nepal	Eastern part of Nepal	Flood	2011/7/1	○						ICIMOD	
Mongolia	Northwest part of	Flood	2011/6/20							NRSC	
Nepal	Wide area of Nepal	Flood	2011/7/16	○				○		ICIMOD	
India	Wide area of India	Flood	2011/7/18	○						ICIMOD	
Kyrgyzstan	Near the border of Uzbekistan	Earthquake	2011/7/20	○			○	○		CAIAG	AIT
Philippines	Eastern areas of Luzon island	Flash Flood	2011/7/26	○						PHIVOLCS	
Japan	Sanjo-city,Niigata Prefecture	Flood	2011/7/29	○				○	○	JAXA	JAXA, Charter
China	Wenchuan Earthquake(2008) affected area	Mudslide								SichuanUniv	
Taiwan	Eastern areas of Taiwan	Tyhoon	2011/8/29	○		Not clear				NARL	
Japan	Kumanogawa-cho, Wakayama Pre.	Flood	2011/9/3	○			○	○		JAXA	JAXA
Pakistan	Sindh province	Flood	2011/9/15	○				○		PMD (via	AIT
India, Nepal	Northern area of India, Nepal	Earthquake	2011/9/18	○				○		ICIMOD,	
Japan	Gifu Prefecture	Flood	2011/9/21	○				○		JAXA	
Philippines	Center-north of Luzon island, Isabela-Aurora area	Flood	2011/9/28	○				○		Manila Observatory	AIT
Vietnam	Mekong delta, and Central Vietnam	Flood	2011/10/4	○				○	○	MONRE	Charter
Thailand	North and central area	Flood	2011/August	○			○	○	○	DDPM	JAXA, CRISP, AIT
Cambodia	Mekong river and Tonlé Sap lake	Flood	2011/August	○	○					MOLM	AIT
Myanmar	Magway Region	Flood	2011/10/21	○	○			○		ICIMOD, RRD	ICIMOD
Vietnam	provinces of Quang Binh, Hue, Quang Nam	Flood	2011/11/6	○						MONRE	
Kyrgyzstan	Bishkek-Osh highway	Snow Avalanches	2011/11/24							CAIAG	
Brunei	Tutong District	Flood	2011/12/3							Survey Department	
Indonesia	Mt.Gamalama in North Maluku province	Volcanic Eruption	2011/12/11	○						LAPAN	
Philippines	Northern Mindanao around Cagayan de Oro City	Flood, Flash Flood	2011/12/16	○			○	○	○	PHIVOLCS, Manila Obsevatory	AIT, Charter
China	Hong Kong	Forest Fire	2011/12/29							the Chinese University of Hong Kong	
Brunei	Coastal water of Seria to Belait	Oil spill	2011/12/29							Survey Department	

Non-action

Action 31
Non-Action 9
Total 40

Emergency Observation in 2012

Country	Region	Type	Date	Implementation for Emergency						Requester	Analyzer
				JAXA	ISRO	KARI	GISTDA	NARL	Disaster Charter		
Fiji	Provinces of Ba and Nadroga	Flood	2012/1/22	○				○		NDMO(FJ)	AIT
Papua New Guinea	mountainous Highlands region	Land slide	2012/1/24	○						NDC(PNG)	
Philippines	Negros Oriental	Earthquake	2012/2/6	○				○		PHIVOLCS	AIT
Bhutan	Lhuntse District	Wildfire	2012/2/19							MOHCA(BT)	
Kazakhstan	South Kazakhstan	Flood	2012/3/1	○				○		NCSRT(KZ)	AIT
Kyrgyzstan	Kazarman	Flood	2012/3/27	○			○	○		CAIAG (KG)	AIT
Thailand, Indonesia	Offshore western Sumatra	Earthquake	2012/4/11							GISTDA, BNPB	
Nepal	Kaski district (Seti River)	Flood	2012/5/5	○	○					LMTC(NP), ICIMOD	AIT
Tajikisitan	Kulob district	Flood	2012/5/11	○	○					CESCD(TJ)	AIT
Kazakhstan	the border with China	Fire	2012/6/1							NCSRT(KZ)	
Indonesia	Gamalama volcano	Volcanic Eruption	2012/5/9							BPPT	
China	Xiangxi Tujia and Miao Autonomous Prefecture	Flood	2012/6/25	○						the Chinese University of Hong Kong	
Japan	Ooita and Fukuoka Prefecture	Flood	2012/7/3	○	○			○		JAXA	AIT, JPYU
China	Beijing	Flood	2012/7/21	○				○		the Chinese University of Hong Kong	AIT, CUHK
Philippines	Metro Manila	Flood	2012/8/6	○	○			○	○	NIGS, MO	AIT, LAPAN, Charter
Kazakhstan	south of Almaty city	Wildfire	2012/8/22	○	○			○		NCSRT(KZ)	AIT
Indonesia	Central Sulawesi	Flash Flood	2012/8/25	○				○		BPPT	AIT, BPPT
Vietnam	Provinces from Thanh Hoa to Ha Tinh	Flood	2012/9/7	○						MONRE	
Indonesia	Simpang Hilir, Kayong Utara in West Kalimantan	Forest Fire	2012/9/14							LAPAN	
India	Assam	Flood	2012/9/23	○			○	○		GHTU (IN)	AIT
Sri Lanka	South-western parts of the island	Cyclone								IWMI	
Indonesia	West Sulawesi	Flash Flood	2012/11/8	○						LAPAN	
Philippines	North-east part of Mindanao	Cyclone	2012/12/4	○	○	○			○	MO	AIT, Charter
Brunei	Brunei-Muara District	Flood	2012/12/4	○						Survey Department of Brunei	AIT
Philippines	Central Philippines	Tropical Storm	2012/12/25	○				○		MO	AIT

Action	19
Non-Action	6
Total	25

Emergency Observation in 2013

Country	Region	Type	Date	Implementation for Emergency						Requester	Analyzer
				JAXA	ISRO	KARI	GISTDA	NARL	Disaster Charter		
Indonesia	Jakarta	Flood	2013/1/14	O				O		LAPAN	AIT
Solomon Islands	Santa Cruz Islands	Earthquake, Tsunami	2013/2/6	O						NDMO (SI)	
Indonesia	Manado City, North Sulawesi	Flood, Landslide	2013/2/17	O	O					LAPAN	AIT
China	Southwestern Sichuan province	Earthquake	2013/4/20	O	O					the Chinese University of Hong Kong	AIT
Nepal	Khalanga, Darchula district	Flood	2013/6/18	O						NGIIP, Survey Department, NEPAL	
India	North India, Uttrakhand	Flood	2013/6/17	O						Symbiosis Institue of Geoinformatics	
Indonesia, Malaysia	Sumatra, Riau Province (Indonesia) Muar (Malaysia)	Forest Fire (Indonesia) Haze (Malaysia)	2013/4/17	O	O					LAPAN	
Vietnam	Quy Nhon coastal area	Oil spill	2013/7/7							NRSC(VN)	
Thailand	Chanthaburi Province	Flood	2013/7/23	O					O	GISTDA	AIT
Japan	Yamaguchi Prefecture	Flood	2013/7/28	O				O	O	Hiroshima Institute of Technology	Hiroshima Institute of Technology, Yamaguchi Univ., AIT
Myanmar	Kayin State	Flood	2013/7/29	O						MEC, Myanmar Engineering Society	
Philippines	Metro Manila	Flood, Landslide,	2013/8/19	O					O	Manila Observatory (MO)	AIT, PHIVOLCS, MO, PAGASA
Pakistan	Rajan Pur, Punjab	Flood	2013/8/Early							WWF (Pakistan)	
Japan	Shimane Prefecture	Flood	2013/8/24	O				O		Hiroshima Institute of Technology	
India	State of Orissa and Andhra Pradesh	Flood	2013/10/12	O						IWMI, ICAR (India)	
Philippines	Bohol Island	Earthquake	2013/10/15	O	O				O	PHIVOLCS	
Japan	Izu Oshima Island (Tokyo)	Land slide	2013/10/16	O				O	O	JAXA (on behalf of Ministry of Land & Transportation)	
Vietnam	Ha Tinh. Quang Binh and Binh Duong	Storm and Flood	2013/1014	O	O				O	MONRE	AIT
Philippines	East Visayas (Samar Is.), Tacloban, Ormoc (Leyte Is.)	Storm	2013/11/8	O	O					AHA Center, NDRRMC (Philippines)	
Malaysia	Kuantan Pahang	Flood	2013/12/3	O	O					ANGKASA	

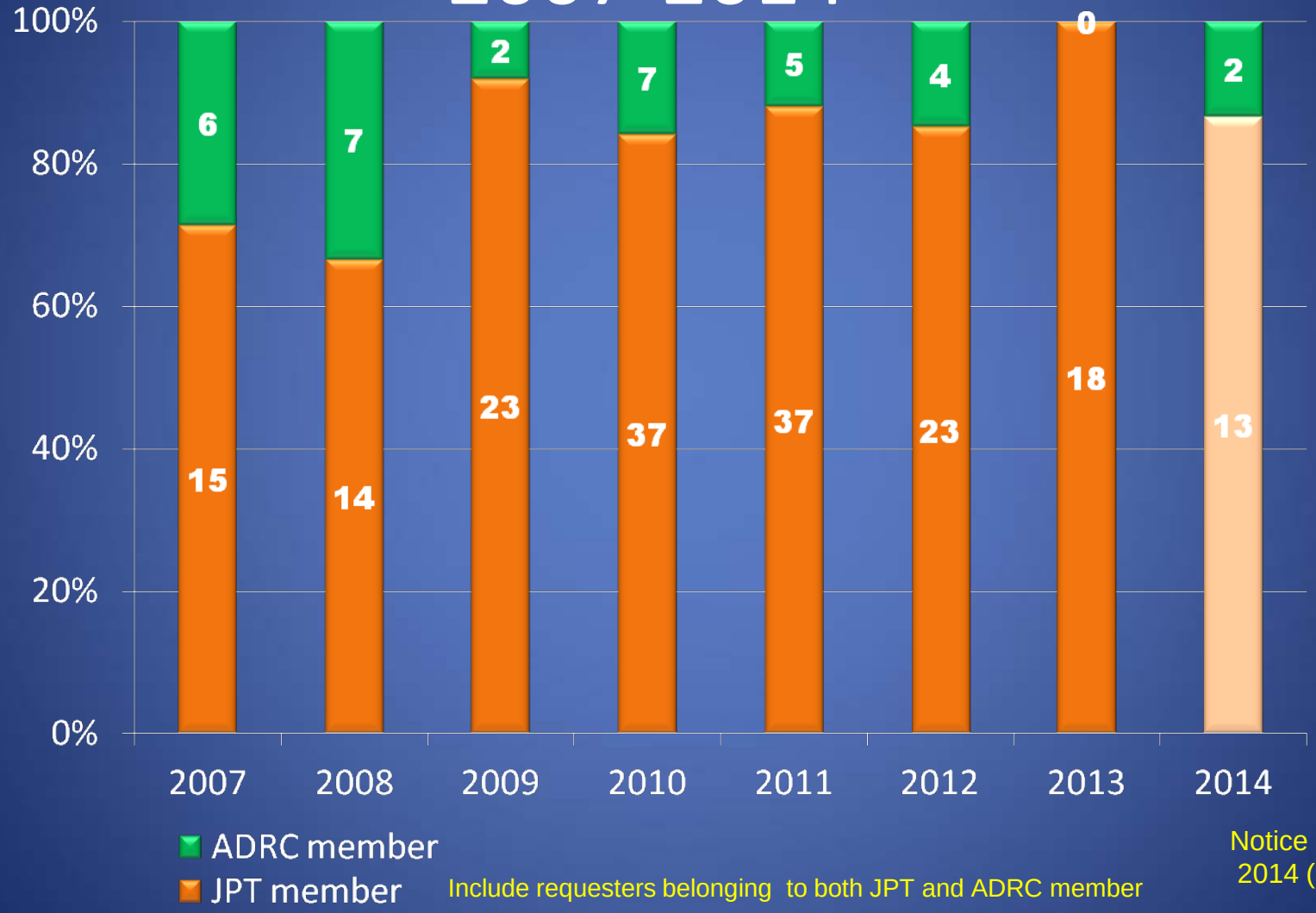
Action 18
Non-Action 2
Total 20

Emergency Observation in 2014

Country	Region	Type	Date	Implementation for Emergency						Requester	Analyzer
				JAXA	ISRO	KARI	GISTDA	NARL	Disaster Charter		
Tonga	Ha'apai Group	Tropical cyclone	2014/1/10	○	○			○		SOPAC Tonga National Emergency Management	AIT (data checking report)
Brunei	Areas in Jerudong Areas in Tutong District	Flood and Landslide	2014/1/13-16	○				○		Survey Department of Brunei	AIT (data checking report)
Indonesia	1) Kampung Pulo, West Jakarta 2) Manad, North Sulawesi	Flood and Landslide	2014/1/13-16	○	○					LAPAN	AIT (data checking report)
Indonesia	Sinabung Volcano, North Sumatera	Volcanic Eruption	2014/1/31	○	○			○		BPPT	AIT
Indonesia	Kelud Volcano, East Java	Volcanic Eruption	2014/2/13	○	○			○	○	LAPAN	AIT
Solomon Islands	Honiara	Flood	2014/4/3	○	○			○		SOPAC, Solomon Islands National Disaster	
Tajikisitan	Khatlon province	Mudflow and Landslide	2014/4/12	○	○			○	○	CESCD(TJ)	AIT
Afghanistan	northern part	Flood and Landslide	2014/4/20							ICIMOD	
Japan	Kyushu District,Wakayama Prefecture	Flood and Lanadslide	2014/7/7	○						JAXA	
Nepal	Shindhupalchowk District	Landslide	2014/8/2	○					○	ICIMOD	AIT
China	Yunnan Province	Earthquake	2014/8/3	○	○				○	Chinese Univercity of Hong Kong	AIT
Japan	Hiroshima Prefecture	Landslide	2014/8/19	○				○		JAXA	
India	Dahamaji,State of Assam Lakhimour,State of Assam	Flood	2014/8/24	○				○	○	AIT(on behalf of Assam State Disaster management Authority)	AIT
Japan	Mt.Ontake, Prefectural border of Gifu and Nagano	Volcanic Eruption	2014/9/27	○				○		JAXA	
India	Andhra Pradesh	Flood and Srorm	2014/10/12	○					○	NRSC/ISRO	
Sri Lanka	Koslanda district	Landslide	2014/10/29	○					○	DMC./Sri Lanka	

Action 15
Non-Action 1
Total 16

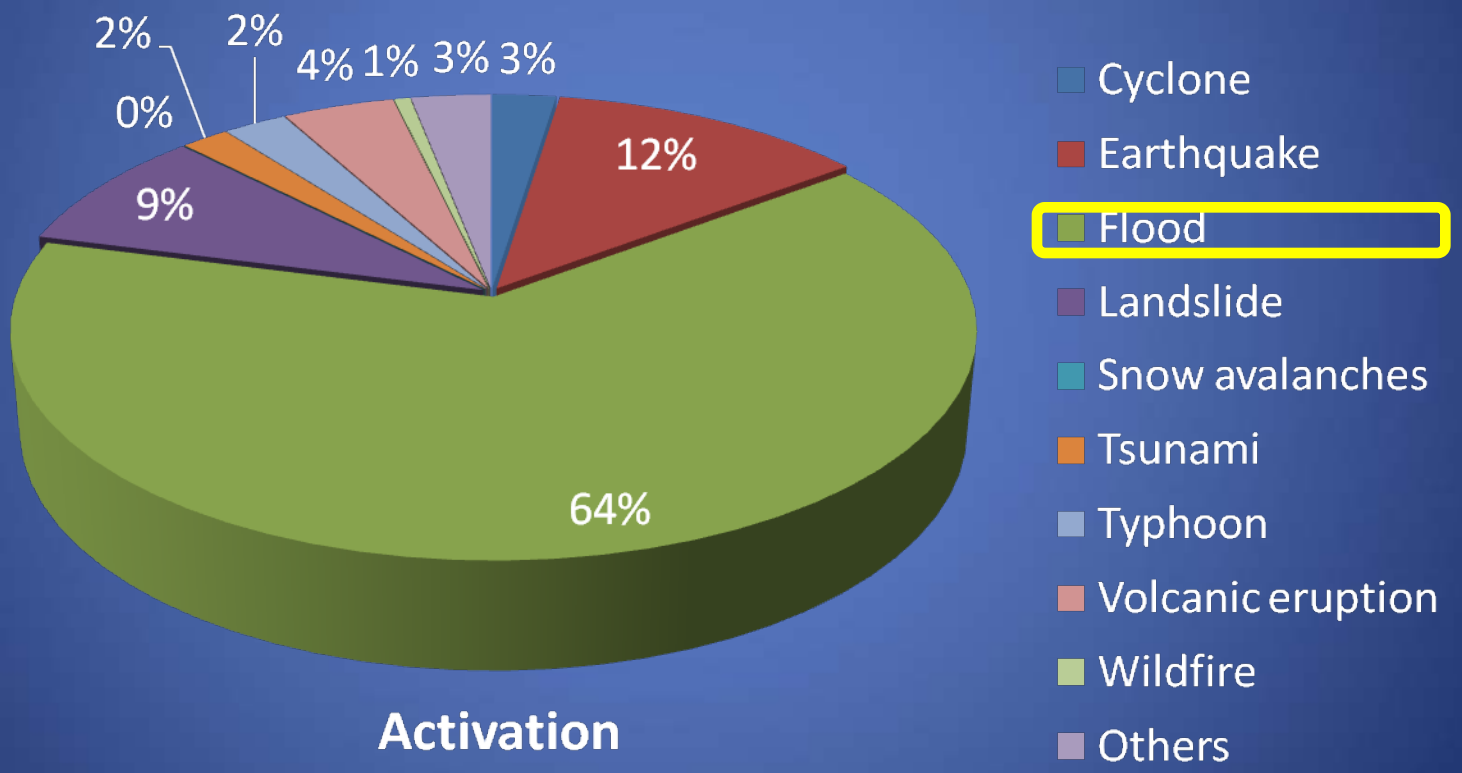
Changes in the Ratio of Requesters 2007-2014



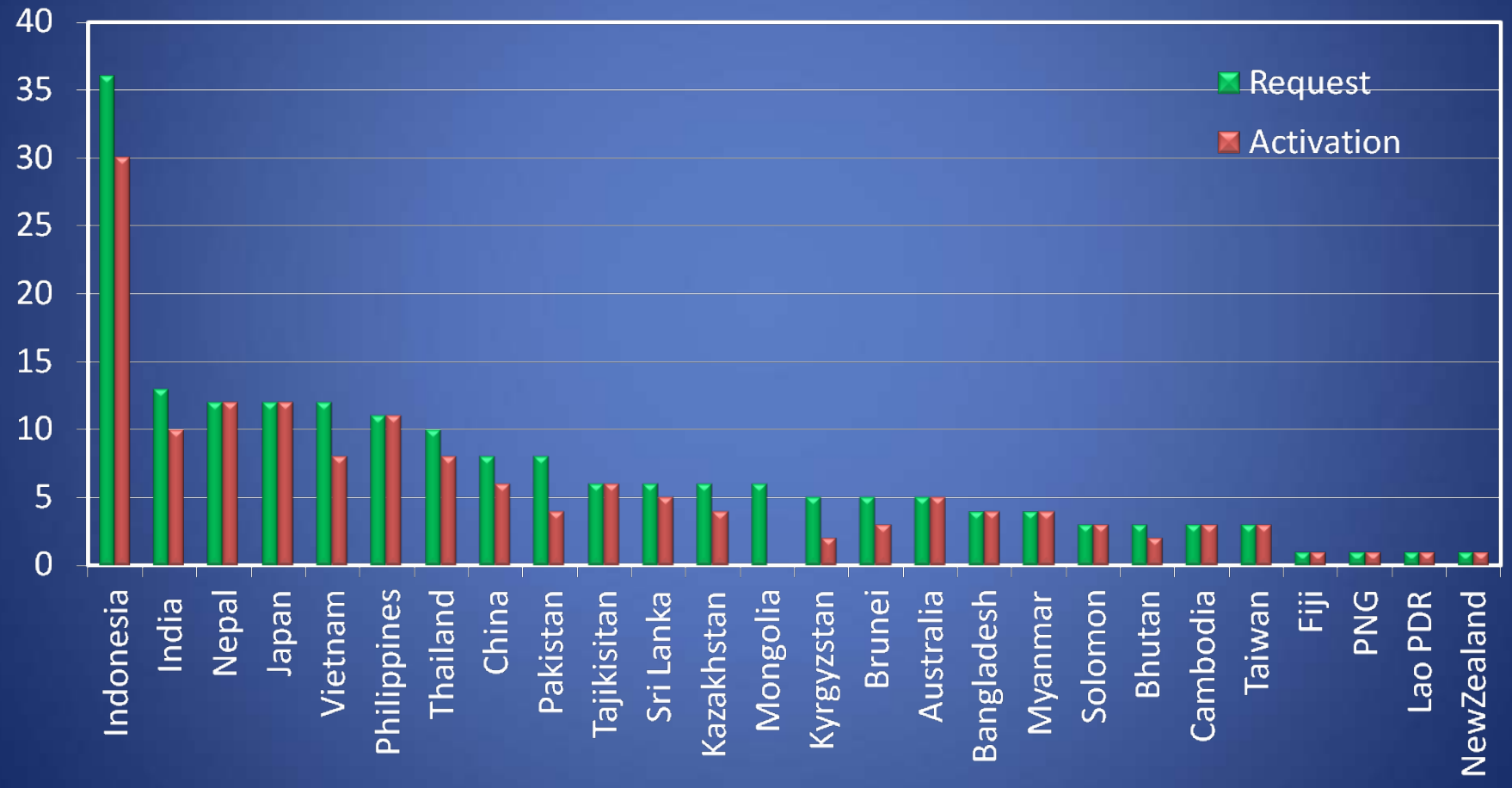
Include requesters belonging to both JPT and ADRC member

Notice :
2014 (until October)

Breakdown by type of disaster 2007-2014

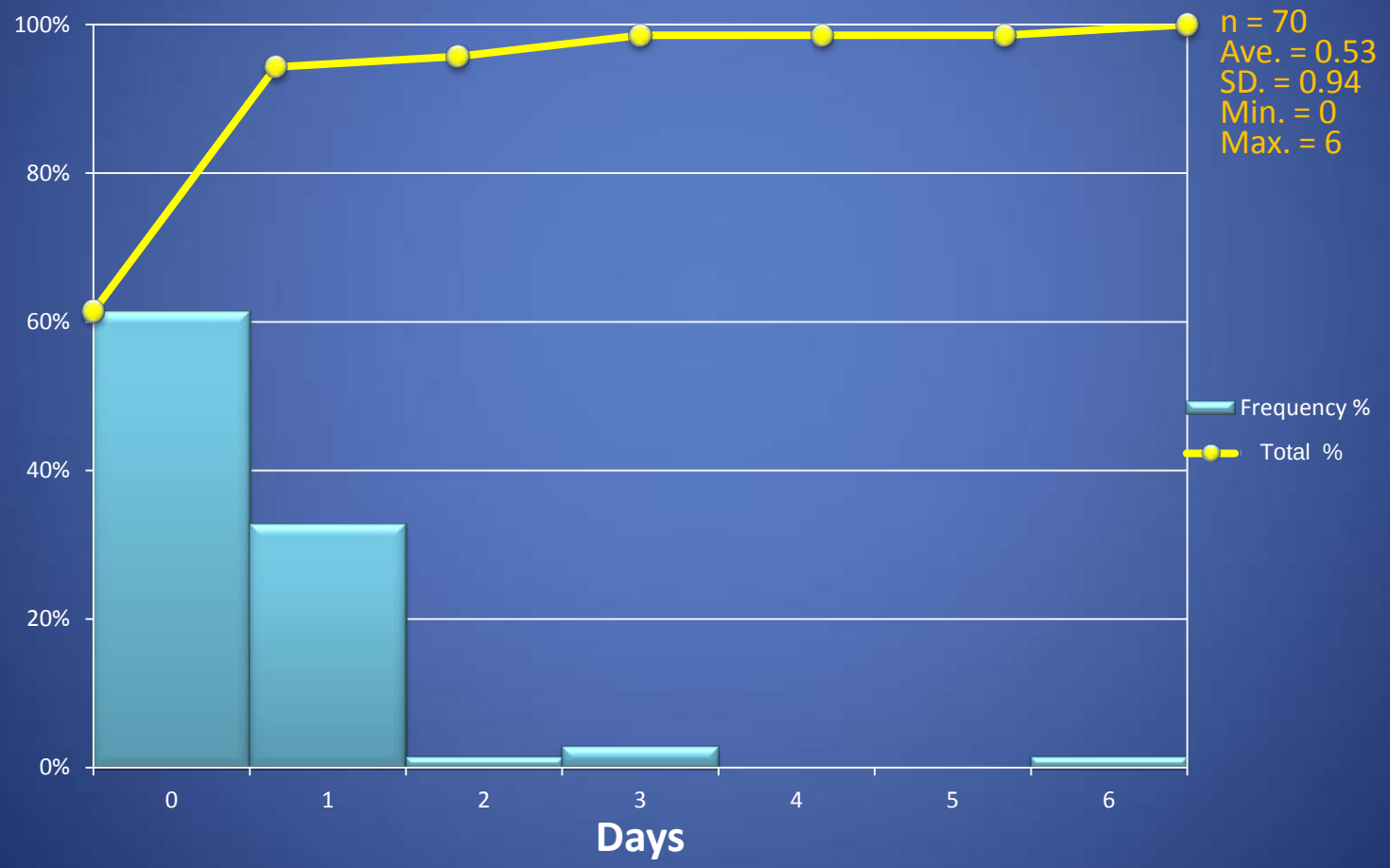


The status of implementation of emergency observation for each country 2007-2014

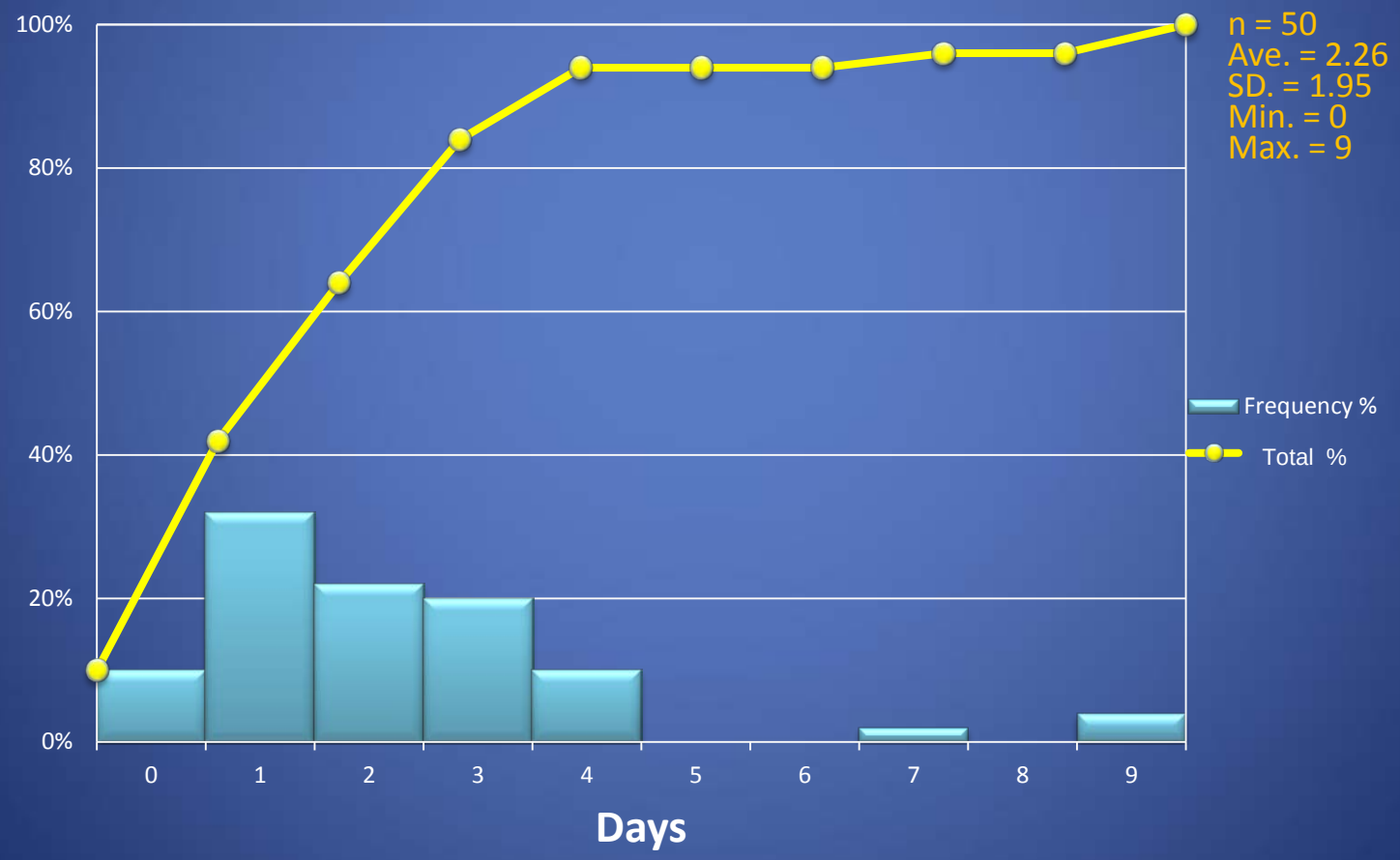


Notice : 2014 (until October)

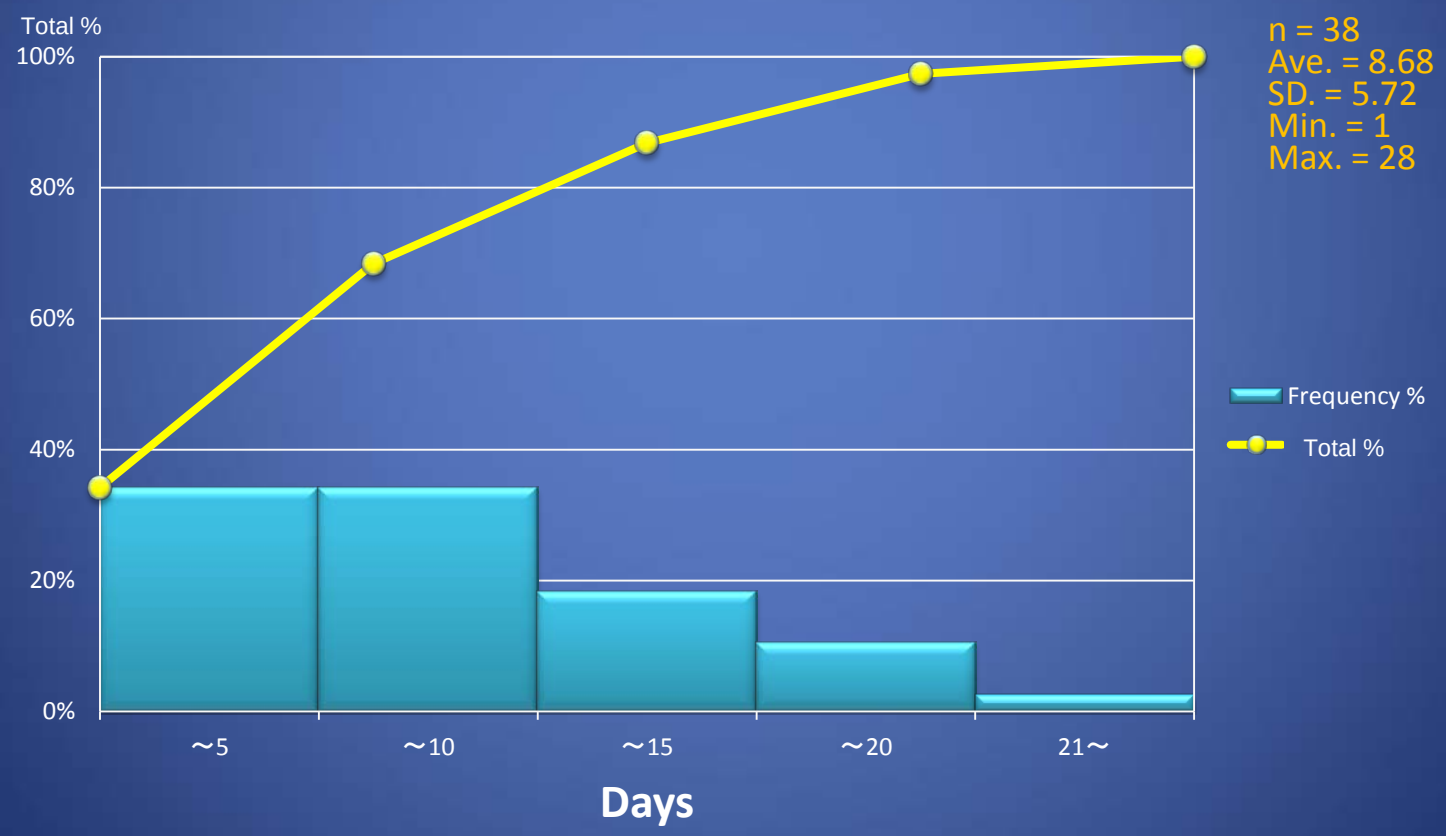
Analysis of Time from Request to Activation Jun.2011 – Oct.2014



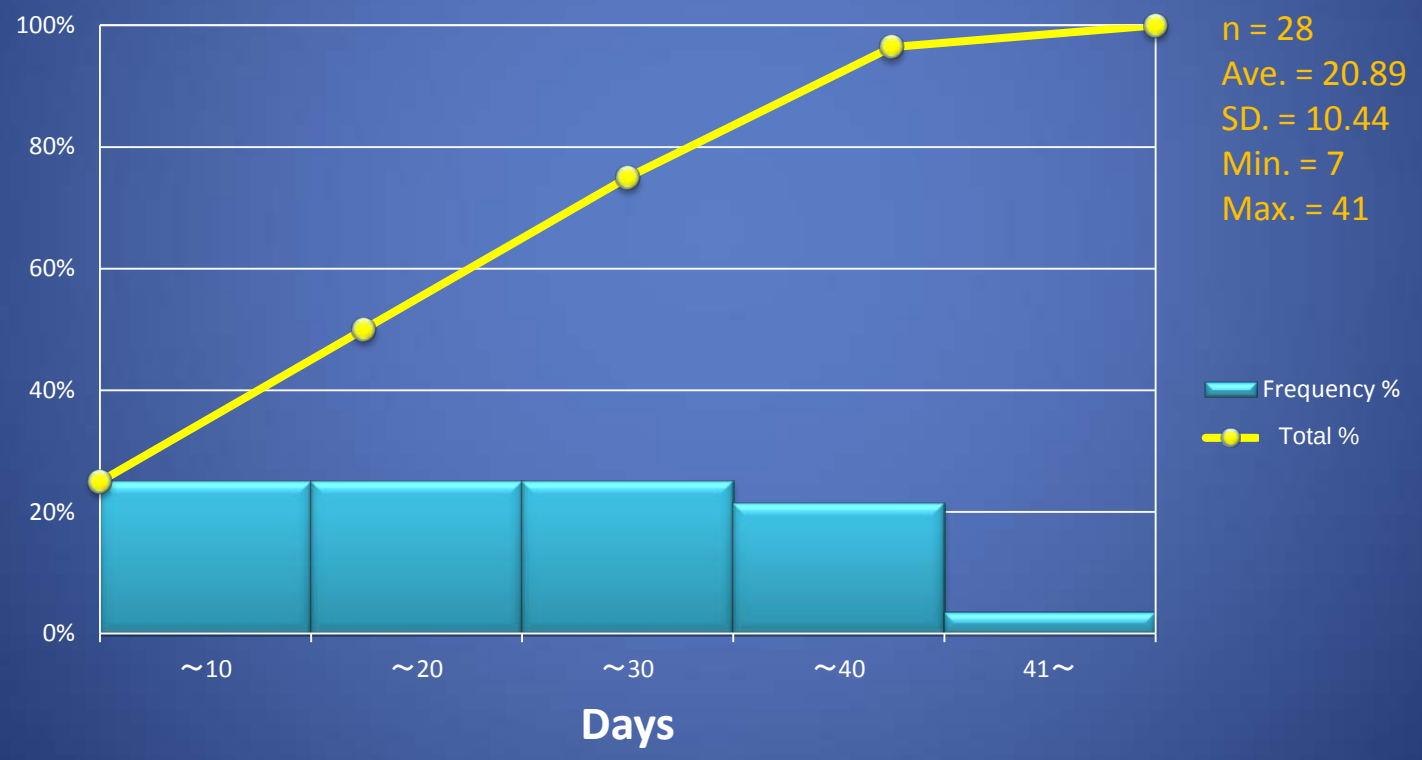
Analysis of Time from Request to Archive Delivery Jun.2011 – Oct.2014



Analysis of Time from Request to Post Image Delivery Jun.2011 – Oct.2014



Analysis of Time from Request to Product Delivery Jun.2011 – Oct.2014



SUMMARY

- Average of request number is almost 20-40 times/year.
- Among requests, Sentinel Asia is carried out at 80%, and action post the disaster is carried out at 80% of those.
- From request to *activation time is almost in one day
- *activation time: trigger of Sentinel Asia
- From request to archive delivery is almost in 3 days
- From request to post image delivery, it takes average of 9 days
- From request to product delivery, it takes average of 21 days

Thank You For Your Attention

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