Status of Dispatch of Experts such as TEC-FORCE and Technical Support Activities in Times of Disaster

1. Introduction

In recent years, it is already recognized that natural impacts are localized, concentrated, and becoming serious, and the efforts to generalize hardware and software measures and to minimize damage have been promoted more actively. Among such efforts, as one of effective measures, the Ministry of Land, Infrastructure, Transport and Tourism established TEC-FORCE (emergency disaster control expedition) in 2008, which has been accumulating activities for the purpose of the prevention of the occurrence and spread of damage as well as early recovery of affected areas.

2. Activities such as TEC-FORCE of NILIM

TEC-FORCE, dispatched from NILIM, acts as the "high technical assistance squad" that mainly responds to events and damage that are more complicated and difficult for experts to judge based on the experience accumulated through daily researches as backbone. Its main roles are investigation of the damage situation and evaluation of the safety of facilities, as well as provision of advice for the prevention of secondary disasters based on advanced judgement.

In the Kumamoto earthquake in April 2016, we dispatched specialists in various fields responding to the respective damage from landslides in the mountain area,

damage to highway structures such as bridges, and damage to various types of buildings.

In addition to the activities as TEC-FORCE, we dispatch specialists immediately to continue technical assistance activities in response to requests from local governments and regional development bureaus in the affected areas. Furthermore, we also actively conduct voluntary inspections as an activity to improve our technologies related to disaster prevention and reduction.

3. Evaluation of the Contribution of the Activities

We received the Minister of Land, Infrastructure, Transport and Tourism's Award for activities of NILIM's TEC-FORCE in response to the torrential rains in the Kanto and Tohoku regions in September 2015 at the national TEC-FORCE convention held in December 2016.

In addition, NILIM also dispatched its personnel in response to the landslide disaster occurred in Hiroshima city in August 2014 and received the Cabinet Office Disaster Prevention Achievement Award of 2016 from the Prime Minister for the TEC-FORCE activities of the entire Construction and Transport Ministry in response to this disaster in September 2016.

Table Record of the dispatch of specialists in 2016 (From January to December)

• Kumamoto Earthquake

Departmen	Department, center, division and title			Period of dispatch
Water	Wastewater System		Tsutomu Uchida	Apr. 15 – Apr. 18
Water Quality Control		Head	Toshihiro Yokota	May 11 – May 13
Departme nt	Wastewater System Division	Senior Researcher	Wataru Fukatani	Apr. 15 – Apr. 18, May 11 – May 13, May 25 – May 27
		Researcher	Toyohisa Miyamoto	May 11 – May 13, May 26 – May 27
	River Division	Head	Atsushi Hattori	Apr. 15 – Apr. 16
		Senior Researcher	Hirotoshi Mori	Apr. 15 – Apr. 16, May 11 – May 12
			Masaki Fukushima	Apr. 15 – Apr. 16, Apr. 26 – Apr. 27, May 11 – May 12
River			Yoko Yamamoto	Apr. 26 – Apr. 27
Departme nt		Researcher	Kazuhiro Yanagawa	Apr. 15 – Apr. 16
			Yusuke Nishimura	Apr. 15 – Apr. 16
			Shingo Sasaoka	Apr. 26 – Apr. 27
			Atsunori Suzuki	Apr. 26 – Apr. 27, May 11 – May 12
		Research Engineer	Kento Nakamura	Apr. 15 – Apr. 16, May 11 – May 12

Departmen	Department, center, division and title			Period of dispatch
River Departme	Large-scale Hydraulic	Head	Masafumi Kondo	Apr. 17 – Apr. 20
nt	Structure Division	Researcher	Koushi Tanaka	Apr. 17 – Apr. 20
	Director		Atsushi Okamoto	Apr. 25 – Apr. 29
		Head	Wataru Sakurai	Apr. 18 – Apr. 24, May 4 – May 11
		Senior Researcher	Taro Uchida	Apr. 20 – Apr. 24
	Sabo	Researcher	Naoki Matsumoto	Apr. 25 – Apr. 29
Sabo	Planning Division	Researcher	Hiroaki Izumiyama	Apr. 26 – Apr. 29
Departme nt			Norimitsu Shinohara	Apr. 20 – Apr. 22
		(Parallel appointment)	Masahide Matsuzawa	Apr. 23 – Apr. 25
			Hirokazu Domon	Apr. 26 – Apr. 29
	Sabo	Head	Masaru Kunitomo	Apr. 15 – Apr. 17, Apr. 23 – Apr. 28
	Risk-Manag ement	Researcher	Ikuo Murata	Apr. 22 – Apr. 26
	Division	Research Engineer	Yamato Suzuki	Apr. 18 – Apr. 21
Road Traffic	Road Environmen	Head	Ryuji Inoue	Apr. 24 – Apr. 27
Departme nt	t Division	Researcher	Tomoki Mitsutani	Apr. 24 – Apr. 27

Departn	nent, center, divi	sion and title	Name	Period of dispatch
•	Director		Yoshitomi Kimura	May 12 – May 13, Jul. 5
	Research Coord Road Structures		Shinji Fukushima	Jun. 1 – Jun. 2
		Head	Jyun'ichi Hoshikuma	Apr. 15 – Apr. 18, May 1, Jun. 16 – Jun. 17
	Bridge and	Senior	Masahiro Shirato	Apr. 15 – Apr. 18, Apr. 19 – Apr. 21, Apr. 24 – Apr. 25, May 25 – May 26
	Structures Division	Researcher	Yutaka Kato Takehito Matsukawa	Apr. 21 – Apr. 23 Apr. 21 – Apr. 23
			Yasuhiro Masuda	Apr. 25 – Apr. 28
			Haruhiko Kohno	Apr. 15 – Apr. 18, Apr. 19 – Apr. 21
Road Structure		Researcher	Fumi Miyahara	Apr. 25 – Apr. 28
Structure		Head	Toshiaki Mabuchi	Apr. 16 – Apr. 18,
Departm ent		Senior	Shigeru Takagi	Jun. 14 – Jun. 15 Apr. 19 – Apr. 23, May. 11 – May 12
	Foundation, Tunnel and Substructures	Researcher	Hideaki Nishida Minoru Abe	Apr. 21 – Apr. 23, May 25 – May 26 Apr. 21 – Apr. 23
	Division		Yuki Uehara	Apr. 21 – Apr. 23, May 11 – May 12
		Researcher	Atsushi Nishifuji	Apr. 24 – Apr. 27, May 11 – May 12, May 25 – May 26
		Head	Kazuyuki Kubo	Apr. 21 – Apr. 23
		Senior	Seiji	Apr. 16 – Apr. 18,
	Pavement and Earthworks	Researcher	Tanigawa Tadao Enomoto	Apr. 19 – Apr. 23 Apr. 21 – Apr. 23
	Division	Researcher	Yoshiki Ishihara	Jun. 1 - Jun. 2
			Yoshiomi Funakoshi	Jun. 1 – Jun. 2

Department, center, division and title		Name	Period of dispatch	
		Head	Shojiro Kataoka	Apr. 29 – Apr. 30
		Senior	Nobuhiro Imanaga	Apr. 25 – Apr. 28
Road Structure	Earthquake Disaster	Researcher	Yoshihiro Nakao	May 19, Jun. 6- Jun. 7
S Departm ent	Management Division	Researcher	Tatsufumi Kajio	Apr. 19 – Apr. 21
ent		Researcher	Ryota Nakagawa	Apr. 29 – Apr. 30
		Research Engineer	Yosuke Ishii	Apr. 25 – Apr. 28, Jun. 6 – Jun. 7
	Standards and Accreditation	Senior	Takafumi Nakagawa	Apr. 16 – Apr. 19, Apr. 26 – Apr. 28,
	System Division	Researcher	Yoshihiro	May 19 – May 20 Apr. 28 – Apr. 29,
		YY 1	Iwata Koichi Morita	Jun. 8 – Jun. 9
		Head Senior	Koleni Morita	Apr. 29 – Apr. 30 Apr. 15 – Apr. 17,
	Structural	Researcher	Hisatoshi Kashiwa	Apr. 13 – Apr. 17, Apr. 22 – Apr. 24, May 19 – May 20
Building Departm	Standards Division		Masashi Miyamura	Apr. 16 – Apr. 19
ent			Haruhiko Suwada	Apr. 28 – Apr. 29, Jun. 6 – Jun. 8
	Equipment Standards Division	Senior Researcher	Hideki Yamaguchi	Apr. 19 – Apr. 21
	Fire Standards Division	Senior Researcher	Keisuke Himoto	Apr. 26 – Apr. 28
	Evaluation System Division	Senior Researcher	Yoshio Wakiyama	Apr. 19 – Apr. 21, May 23 – May 25, Jun. 8 – Jun. 10
Disaste	l, Marine and er Prevention	Head	Takeshi Suzuki	Apr. 17 – Apr. 18
Coas	partment tal Disaster tion Division	Senior Researcher	Ryoji Naito	Apr. 15 - Apr. 17
Port and		Senior	Masahiro Takenobu	Apr. 15 – Apr. 17
Harbor Departm	Division	Researcher	Yusuke Fukunaga	Apr. 17 – Apr. 18
ent	Airport Facilities Division	Head	Yoshitomo Tsubokawa	Apr. 16 – Apr. 17
	ial Capital ment Research	Head	Masao Kurihara	May. 16 – May 17
Landscap	Center be and Ecology	Researcher	Keita Aragane	Apr. 15 – Apr. 16, May 16 – May 17
L	Division		Takashi Ikeda	Apr. 15 – Apr. 16

• Typhoon No. 10

Departm	Department, center, division and title			Period of dispatch
		Head	Yoshio Suwa	Sep. 1 – Sep. 3
	River Division	Researcher	Yusuke Nishimura	Sep. 1 – Sep. 3
		Researcher	Shingo Sasaoka	Sep. 2
River	Coast	Head	Fuminori Kato	Sep. 28
Depart ment	Division	Senior Researcher	Kenji Noguchi	Sep. 28
	Water Cycle Division	Researcher	Hideyuki Yamaji	Sep. 1 – Sep. 3
	Flood Disaster Prevention Division	Senior Researcher	Yoshinori Takeuchi	Sep. 1 – Sep. 3

Departm	Department, center, division and title			Period of dispatch
	Foundation,	Senior	Hideaki	Aug. 31 – Sep. 1
Road	Tunnel and	Researcher	Nishida	Aug. 31 – Sep. 1
Structur	Substructures Division	Researcher	Atsushi Nishifuji	Aug. 31 – Sep. 1
Depart	Pavement and Earthworks	Head	Kazuyuki Kubo	Sep. 3 – Sep. 4, Sep. 6 – Sep. 7
ment	Division	Senior Researcher	Seiji Tanigawa	Sep. 3 – Sep.4

• Typhoon No. 9 and No. 11

Departn	Department, center, division and title			Period of dispatch
Water Quality	Research Coo Wastewater Restoration	ordinator for System	EEsutomu	Aug. 23
Control Departm ent	Wastewater System Division	Senior Researcher	Tatsuro Matsuura	Aug. 23
Road Departme	Structures	Senior Researcher	Hideaki Nishida	Aug. 24 – Aug. 25
1	on, Tunnel and ures Division	Researcher	Atsushi Nishifuji	Aug. 24 – Aug. 25

• Typhoon No. 13

Department, center, divi	sion and title	Name	Period of dispatch
Sapo Department	Senior Researcher	Jyoko Kamiyama	Sep. 9
	Researcher	Ikuo Murata	Sep. 9

• Tottori Earthquake

Department, center, divi	sion and title	Name	Period of dispatch
Road Structures Department	Head	Kazuyuki Kubo	Oct. 23
	Senior Researcher	Seiji Tanigawa	Oct. 23

• Collapse of road in Hakata-ward, Fukuoka-city

	Department, center, divi	sion and title	Name	Period of dispatch
	Road Structures			
	Department	Hood	Toshiaki	Nov. 13 – Nov. 14
	Foundation, Tunnel and	Head	Mabuchi	100v. 13 – 100v. 14
l	Substructures Division			

• Fire in Itoigawa city

Department, center, division and title			Name	Period of dispatch
Building Departm ent	Fire Standards Division	Senior Researcher	Keisuke Himoto	Dec. 25 – Dec. 26
			Tensei Mizukami	Dec. 25
Urban Planning Departm ent	Urban Disaster Mitigation Division	Head	Shuichi Takeya	Dec. 25

- * Only the emergency responses immediately after disaster are described, and other activities, such as technical assistance related to emergency and full recoveries, which were subsequently and continuously conducted, are omitted.
- * In the field of dispatched personnel, only the names of the relevant personnel of NILIM are described. (The department and titles are on the date of dispatch.)