5 1669

GUIDE to

The Scholarly Resources Microfilm Edition of

## REPORTS OF THE U.S. NAVAL TECHNICAL MISSION TO JAPAN 1945–46



## **FOREWORD**

The U.S. Naval Technical Mission to Japan was established on 14 August 1945. The purpose of this organization was:

"...to survey all Japanese scientific and technological developments of interest to the Navy and Marine Corps in the Japanese Islands of KYUSHU, SHIKOKU, HONSHU, HOKKAIDO; in China; and in Korea south of latitude 38°N. This involved the seizure of intelligence material, its examination and study, the interrogation of personnel, and finally, the preparation of reports which would appraise the technological status of the Japanese Navy and Japanese industry."

Between September 1945 and November 1946, the Naval Technical Mission operated in Japan under the direction of the Chief of Mission, Captain Clifford G. Grimes, USN. During this period a total of 655 officers and men served with the organization. 185 separate reports were published on various aspects of Japanese naval equipment and other technical developments of naval interest.

<sup>&</sup>lt;sup>1</sup>U.S. Naval Technical Mission to Japan, <u>History of Mission</u>, p. 1.

## REPORTS OF THE U.S. NAVAL TECHNICAL MISSION TO JAPAN TABLE OF CONTENTS

		•	
Reel	Report No.	Subject	No of Frames
1		History of Mission	50
		Summary Report	458
	SERIES A: AERON	AUTICS TARGETS	
	A-11	Aircraft Arrangements and Handling Facilities on Japanese Naval Vessels	50
	A-39	Japanese Naval Photography	65
	SERIES D: DOCUM	ENTS AND INTELLIGENCE TA	RGETS
	D-11(E-3)	Japanese Navy League	23
	D-11(E-8)	Gakuto Kaiyo Kai Sea Students Association	11
	SERIES E: ELECT	TRONICS TARGETS	
2	E-01	Japanese Submarines and Shipborne Radar	86
	E-02	Japanese Airborne Radar	38
	E-03	Japanese Land Based Radar	88
	E-04	Japanese Centimeter Wave Techniques	14
	E-05	Japanese Radio and Radar Direction Finder	22 s
	E-06	Electronics Targets Japanese Anti-Radar Coverings	13

Ree1	Report No.	Subject	No of Frames
2 (Cont'd.)	E-07	Japanese Radar Counter-measures and Visual Signal Display Equipment	22
	E-08	Japanese Radio Equip- ment	14
	E-09	Japanese Navigational Aids	17
	E-10	Japanese Sonar and Asdic	70
	E-11	Japanese Communication Systems	6
	E-12	Japanese Experimental Radar	43
	E-13	Japanese Electronic Tubes	39
	E-14	Japanese Magnetic Air- borne Detector	38
	E-15	Power Supplies for Japanese Electronics	13
	E-16	Japanese Antennae	37
	E-17	Japanese Radio, Radar, and Sonar Equipment	14
	E-18	Japanese Radio Apparatu Construction Methods	ıs 12
	E-19	Japanese Electronic Equipment Construction Materials	16
	E-20	Japanese R.F. Trans- mission Lines, Wave Guides, Wave Guide Fitt ings, and Dielectric Materials	16

\*

<u>Reel</u>	Report No.	Subject	No of Frames
2 (Cont'd.)	E-22	Japanese Radio Frequency Measuring Technique	25
	E-23	Japanese Insulation Materials	11
	E-26	Japanese Electronic Harbor Protection Equipment	35
	E-28	Japanese Electronics- General	54
	E-29	Japanese Electronics Training and Operating Techniques	28
	E-30(N)	Japanese Electronics, Miscellaneous ·	22
	SERIES M: MEDIC	AL TARGETS	
3	M-AA	Organization, Adminis- tration, and Facilities of the IJN Medical Corps	95 s
	M-AB	References from the Committee for the Technical and Scientific ic Survey of Japanese Activities in Medical Sciences	283
	M-C	Japanese Chemical Warfare	24
	M-D	Neuropsychiatry in the Japanese Armed Forces	26
	M-E	Rehabilitation in the Japanese Navy	22

Ree1	Report No.		No of Frames
3 (Cont'd.)	M-I	General Medical Statistics Japanese Army and Navy	15
	M-01	Data Relative to Life in the Jungle and on Sea Islands and Data on Composition of Insecti- cides	19
	M-02	Dentistry in the Japanese Armed Forces	18
	M-03	Podiatry in the Japanese Navy	12
	M-04	Information Relative to Venereal Disease Con- trol in Japan	18
	M-05	Japanese Bacteriological Warfare	6
	M-06	Aero, Surface, and Sub- marine Medicine and Research in the Japanese Navy	75
	M-07	Opportunity for Infection of Naval Personnel with Tuberculosis in Japan	12
	M-09	Preventive Medicine and Public Health Organi- zation and Facilities in the Japanese Navy	23
	M-10	Bacteriology and Chemistry in the Japanese Navy	17
	M-11	General Medicine and Special Diseases in the Japanese Navy	18

.

Pag 1	Report No.	Subject	No of Frames
<u>Reel</u>	Report No.		
3 (Cont'd.)	M-12	Pharmacology and Malariology in Japan Civilian and Naval	
•	SERIES O: ORDNA	NCE TARGETS	
4	0-01-1	Japanese Torpedoes and Tubes-Article 1, Ship and Kaiten Torpedoes	446
	0-01-2	Japanese Torpedoes and Tubes-Article 2, Air-craft Torpedoes	61
. '	0-01-3	Japanese Torpedoes and Tubes-Article 3, Above- Water Tubes	20
	0-02	Japanese Guided Missile	es 28
	0-03	Countermeasures and Defensive Organization of Japanese Against U.S. Mines	85
	0-04	Japanese Mines	42
	0-05	Japanese Naval Mining Organization and Operational Techniques	35
	0-06	Japanese Bomb Disposal Methods	18
	0-07	Ship Signatures and Related Data	12
. 5	0-08	Japanese Depth Charges	14
	0-09	Japanese Naval Rockets	10
	0-10-1	Japanese Propellants-Article 1, Use and Man facture of Ortho Tolyl Urethane for Stablizin Rocket and Gun Propell	ug

<u>Reel</u>	Report No.	Subject	No of Frames
5 (Cont'd.)	0-10-2	Japanese Propellants- Article 2, Rocket and Gun Propellants- General	12
	0-10-3	Japanese Propellants- Article 3, Research on Non-Volatile Solvent Powders	43
	0-11	Japanese Illuminating and Colored Burst Projectiles	12
	0-12	Japanese Pyrotechnics	28
	0-14	Japanese Navy Ammunitio Cases for 5CM and Large Caliber Guns	n 17 r
	0-15	Japanese Steel Manu- facturing Methods	21
•	0-16	Japanese Heavy Armor	57
	0-17	Japanese Naval Pro- jectile Fuzes	82
	0-18	Japanese Ordnance Fuzes	25
	0-19	Japanese Projectiles General Types	70
	0-20	Japanese Ammunition Primers	17
	0-21	Japanese Interior Ballistics	17
	0-22	Japanese Tracers	19
	0-23	Japanese Bombs	69

<u>Reel</u>	Report No.	Subject	No of Frames
5 (Cont'd.)	0-24	Description and Operation of Japanese Type 3 Photoelectric Fuse	21
	0-25	Japanese Explosives	28
	0-26	Japanese Navy Powder Bags	6
	0-27	Japanese Incendiary Mixtures	13
	0-29	Japanese Fire Control	39
	0-30	Japanese Anti-Aircraft Fire Control	133
6	0-31	Japanese Surface and General Fire Control	64
	0-32	Japanese Torpedo Fire Control	41
	0-35	Japanese Demolition Methods	30
	0-36-1	Japanese Light Armor- Article 1	79
	0-36-2	Japanese Light Armor- Article 2	12
	0-38	Japanese Ordnance Research Testing, and Training	27
	0-39-1	Japanese Ordnance Research-Article 1, Gu fire Testing of Bombs the Kamegakubi Naval Proving Ground	

			•	No of
Re	<u>eel</u>	Report No.	Subject	Frames
6	(Cont'd.)	0-39-2	Japanese Ordnance Research-Article 2, Experimental Research on Super High Velocity Guns and Projectiles	37
		0-39-3	Japanese Ordnance Research-Article 3 - Torpedo Models	26
		0-39-4	Japanese Ordnance Research-Article 4, Laboratory Procedures	13
		0-41	Japanese Research in Airborne Acoustics and Earthwaves	16
	0-42	Japanese Ordnance Equip- ment Internal Recorders Wave and Tide Meters Torpedo Recovery Gear, Underwater Locators		
		0-44	Effectiveness of Japanese AA Fire	16
		0-45(N)	Japanese 18" Gun Mounts	62
		0-47(N)-1	Japanese Naval Guns and Mounts-Article 1, Mounts Under 18"	77
		0-47(N)-2	Japanese Naval Guns and Mounts-Article 2, AA Machine Guns and Mounts	
		0-48 (N)	Japanese Fuse-Setting Equipment	18
		0-49(N)	Japanese Muzzle Brakes and Flash Hiders	17
		0-50(N)	Japanese Shipboard Rocket Launchers	14

Ree1	Report No.	Subject	No of Frames
6 (Cont'd.)	0-53(N)	Hydraulic Pumps in Japanese Naval Ordnance	16
	0-54(N)	Japanese Naval Guns	49
	0-55 (N)	Defense of Tsushima and Entrance to Sea of Japan	16
	0-56(N)	Japanese Field and Amphibious Equipment Kyushu Defense Systems	79
	SERIES S: SHIP	AND RELATED TARGETS	
7	S-01-1	Characteristics of Japanese Naval Vessels- Article l - Submarines	36
	S-01-2	Characteristics of Japanese Naval Vessels- Article 2, Surface War- ship Machinery Design	31
	S-01-3	Characteristics of Japanese Naval Vessels- Article 3, Surface War- ship Hull Design	63
	S-01-4	Characteristics of Japanese Naval Vessels Article 4, Surface Warship Machinery Design (Plans and Documents)	
	S-01-5	Characteristics of Japanese Naval Vessels Article 5, Shipboard Electrical Equipment	392 -
	S-01-6	Characteristics of Japanese Naval Vessels Article 6, Submarines, Supplement l	25

		•	
<u>Reel</u>	Report No.	Subject	No of Frames
7 (Cont'd.)	S-01-7	Characteristics of Japanese Naval Vessels- Article 7, Submarines, Supplement II	229
8	S-01-8	Characteristics of Japanese Naval Vessels- Article 8, Portable Gasoline Driven Pump Unit	13
	S-01-9	Characteristics of Japanese Naval Vessels- Article 9, Underwater Protection	318
	S-01-10	Characteristics of Japanese Naval Vessels- Article 10, Landing Craft	39
·	S-01-11	Characteristics of Japanese Naval Vessels- Article 11, Main and Auxiliary Machinery	33
	S-01-12	Characteristics of Japanese Naval Vessels- Article 12, Boilers and Machinery	
	S-01-13	Characteristics of Japanese Naval Vessels Article 13, Gas Turbines	32
	S-02	Japanese Suicide Craft	48
	S-03	Photographs of Important Japanese Naval Units Afloat	nt 57
	S-06-1	Reports of Damage to Japanese Warships- Article 1, NAGATO(BB), KATSURAGI(CV), HARUNA( AOBA(CA), ISE(BB), AMAGI(CV), RYUHO(CVL), OYODO(CL), TONE(CA), HYUGA(BB), ASO(CV) SUZUTSUKI(DD)	79 BB),

Ree1	Report No.	Subject	No of Frames
8 (Cont'd.)	S-06-2	Reports of Damage to Japanese Warships- Article 2, YAMATO(BB), MUSASHI(BB), TAIHO(CV), SHINANO(CV)	35
	S-06-3	Reports of Damage to Japanese Warships- Article 3, Japanese Records of Major Warshi Losses	32 .p
	S-11	Survey of Operable or Salvable Japanese Merchant Vessels	53
9	S-12	General Arrangement and Capacity Plans of Japanese Standard Type Merchant Ships	_
	S-17	Japanese Submarine Operations	196
	S-19	Japanese Submarine Equipment	13
	S-24	Japanese Anti-Submarin Warfare	e 57
	S-28	Japanese Minesweeping Gear and Equipment	88
	S-37	Japanese Degaussing	73
	S-40	Japanese Ships, Miscellaneous Items	11
	S-42	Japanese Navy Diesel Engines	52
	S-43	Japanese Naval Vessels Own Ship's Noise	17
,	S-59	Japanese Navy Paints	32
	S-81(N)	Welding in Japanese Naval Construction	54

Re	<u>el</u>	Report No.	Subject	No of Frames
9	(Cont'd.)	S-82(N)	Provisions for Military Conversion of Japanese Merchant Ships	28
,		S-83(N)	Japanese Model Basins	46
	1. ·	S-84(N)	Japanese Damage Control	17
		S-91(N)	The Fukuryu Special Harbor Defense and Underwater Attack Unit Tokyo Bay	19
		S-92(N)	Lead-Acid Storage Batteries used by the Japanese Navy	21
		S-93(N)	Tenth Military Experi- mental Station Murotsu, Honshu, Japan	33
	·	S-94(N)	Japanese Evaluation of U.S. Anti-Submarine Harbor Defenses	11
	,	S-95(N)	Woods, Textiles, Rubber and Plastics used in Japanese Naval Vessels	, 16
		S-96(N)	Japanese Deck Coverings	s 11
		S-97(N)	Japanese Anchors and Anchor Chain	12
		S-98(N)	Evaluation of the Effectiveness of Allied Offensive Mining Operations Against Japanese Shipping in Chinese and Southwest Pacific Waters	42 i
		SERIES X: MISCE	ELLANEOUS TARGETS	
]	.0	X-01	Physical Chemistry Research in Japan	12

				No of
<u>Reel</u>		Report No.	Subject	Frames
10 (Cont'd.)	ont'd.)	X-02-1	Japanese Infra-Red Devices-Article 1, Control for Guided Missiles	36
		X-02-2	Japanese Infra-Red Devices-Article 2, Heat Locator Equipment	47
		X-02-3	Japanese Infra-Red Devices-Article 3, Research, Development, and Manufacture of Infra-Red Equipment	117
		<b>X-03</b>	Japanese Ultra-Violet Communication Equipment	24
		X-05	Japanese Optics.	61
		X-06	Japanese Geophysical Research	27
		X-11	Japanese Chemical Warfare	29
		X-12	Earthquake Resistant Construction in Japan	31
		X-13-1	Japanese Metallurgy- Article 1, High Temperature Alloys for Gas Turbines, Rocket Nozzles and Lines	17
		X-13-2	Japanese Metallurgy- Article 2, Recovery of Aluminum from Clay and Shale	15
		X-13-3	Japanese Metallurgy- Article 3, Atomic Structure Relative to Dynamic Properties	19

<u>Reel</u>	Report No.	Subject	No of Frames
10 (Cont'd.)	X-14	Quality of Japanese Electric Wires and Cables	27
	X-16	Japanese Aerology	15
	X-17	Japanese Meterological Instruments	14
	X-18-1	Japanese Hydrography- Article 1, Organization Operation and Methods	101
	X-18-2	Japanese Hydrography- Article 2, Wind and Weather Data Including High Altitude Radar Maps	11
·	X-18-3	Japanese Hydrography- Article 3, Wartime Activities of Inter- national Latitude Observatory Mizusawa, Iwate Prefecture, Japan	31
	X-20	Fungus, Moisture-Proof- ing and Anti-Fungus Data	. 5
	X-21	Japanese Use of Balloom for Barrage, Bombing and Aerology	ns 6
	X-28-1	Atomic Bombs, Hiroshima and Nagasaki-Article l Medical Effects	
	X-28-2	Atomic Bombs, Hiroshimand Nagasaki-Article 2 Medical Effects, Supplementary Studies	
	X-29	Bombing Effects of Normal Bombs in Japan	5

		,	
Ree1	Report No.	Subject	No of Frames
10 (Cont'd.)	X-31	Bombproof Construction in Japan	55
11	X-32	Camouflage of Japanese Ships and Naval Installations	67
	X-33	Design of Japanese Structures	84
	X-34(N)	Magnetic Development in Japan during World War II	65
	X-35(N)	Japanese Metallurgical Specifications, Iron and Steel, Special Steels, Special Non- Ferrous Alloys	22
	X-36(N)	Japanese Welding Standards	15
	X-37(N)	Japanese Methods of Hig Frequency Induction Heating and Melting	gh 23
	X-38(N)-1	Japanese Fuels and Lubricants-Article 1, Fuel and Lubricant Technology	96
	X-38(N)-2	Japanese Fuels and Lubricants-Article 2, Naval Research on Aviation Gasoline	452
12	X-38(N)-3	Japanese Fuels and Lubricants-Article 3, Naval Research on Alcohol Fuel	185
	X-38(N)-4	Japanese Fuels and Lubricants-Article 4, Pine Root Oil Program	205

<u>Reel</u>	Report No.	Subject	No of Frames
12 (Cont'd.)	X-38(N)-5	Japanese Fuels and Lubricants-Article 5, Research on Rocket Fuels of the Hydrogen Peroxide-Hydrazine Type	115
	X-38(N)-6	Japanese Fuels and Lubricants-Article 6, Research on Diesel and Boiler Fuel at the Firs Naval Depot, Ofuna	141 t
	X-38(N)-7	Japanese Fuels and Lubricants-Article 7, Progress in the Syntehesis of Liquid Fuels from Coal	340
13	X-38(N)-8	Japanese Fuels and Lubricants-Article 8, Naval Research on Lubricants	463
	X-38(N)-9	Japanese Fuels and Lubricants-Article 9, Fundamental Hydro- carbon Research	103
	X-38(N)-10	Japanese Fuels and Lubricants-Article 10, Miscellaneous Oil Technology and Refining Installations	89
	X-39(N)	Miscellaneous Reports of Various Japanese Naval Research Activities	115
	X-40(N)	Oceanography in Japan	71

	<b>&amp;</b>					
₹						
		•				
						•
				* *		
	•			,		
					•	
	•		•			
					•	
						•
						•
			,			,