## Capital Adequacy (E) Task Force

## **RBC Proposal Form**

[ ] Capital Adequacy (E) [ x ] Catastrophe Risk (E)	· · · · · · · · · · · · · · · · ·	
[ ] C3 Phase II/ AG43 (F		
	DATE: 11/1/2022	FOR NAIC USE ONLY
CONTACT PERSON:	Eva Yeung	Agenda Item # <u>2023-16-CR</u>
TELEPHONE:	816-783-8407	Year <u>2023</u>
EMAIL ADDRESS:	eyeung@naic.org	DISPOSITION
ON BEHALF OF:	Catastrophe Risk (E) Subgroup	[ x ] ADOPTED <u>1st release:12/2/23 WG/TF</u>
NAME:	Wanchin Chou	2 <sup>nd</sup> release: 1/31/24 TF
TITLE:	Chair	2 <sup>nd</sup> release:
AFFILIATION:	Connecticut Department of Insurance	[ ] REJECTED
ADDRESS:	153 Market St,	[ ] DEFERRED TO
	Hartford, CT 06103	[ ] REFERRED TO OTHER NAIC GROUP
		[ x ] EXPOSED <u>1st release:11/16/23</u> 2nd release: 1/16/24
		[ ] OTHER (SPECIFY)
IDENTIFI	ICATION OF SOURCE AND FORM(S)/IN	STRUCTIONS TO BE CHANGED
[ ] Health RBC Blanks	s [ ] Property/Casualty RBC Blank	cs [ ] Life RBC Instructions
[ ] Fraternal RBC Blanks	s [ ] Health RBC Instructions	[ ] Property/Casualty RBC Instructions
[ ] Life RBC Blanks	[ ] Fraternal RBC Instructions	[ x ] OTHER <u>Cat Event Lists</u>
2023 U.S. and non-U.S. C	DESCRIPTION OF CHA atastrophe Event Lists	NGE(S)
	REASON OR JUSTIFICATION F	OR CHANGE **
New events were determine	ned based on the sources from Swiss Re and A	
	Additional Staff Comm	
<u> </u>	and the PCRBC WG exposed this proposal for	r a 7-public comment period ending 11/23/23.
11/23/23 – cgb No comme 1/16/24 - The Subgroup ar	ents received.  and the PCRBC WG exposed this proposal for a	a 7-public comment period ending 1/23/24.
** This section must be	completed on all forms.	Revised 11-2013

Type of Event	Name	Date	Location	Overall losses when occurred
Wildfire	Texas	2014	Texas, California	> 25 million
Earthquake		2014	California	25+ million
Hurricane	Patricia	2015		25+ million
Hurricane	Joaquin	2015		25+ million
Wildfire	Butte Fire	9/9/15-10/1/15	Amador County, California	~ 300 million
Wildfire	Valley Fire	9/12/15-10/15/15	Lake, Napa and Sonoma County, California	~ 700 million
Hurricane	Matthew	2016	Florida, North Carolina, South Carolina, Georgia and Virginia	\$ 2,698,400,000
Hurricane	Hermine	2016	Florida, North Carolina, South Carolina, Georgia and Virginia	\$ 245,640,000
Wildfire	Erskine Fire	6/23/16-7/11/16	Lake Isabella, Kern County, California	~26 million
Wildfire	Soberanes Fire	7/22/16-9/30/16	Soberanes Creek, Garrapata State Park, Santa Lucia Preserve, Monterey County, California	> 200 million
Wildfire	Chimney Fire	8/13/16-9/6/16	Santa Lucia Range, San Luis Obispo County, California	> 25 million
Wildfire	Clayton Fire	8/13/16-8/26/16	Lake County, California	>25 million
Wildfire	Gatlinburg Wildfire	11/29/16-12/5/16	Sevier County, Gatlinburg, Pigeon Forge, Tennessee	~637 million
Wildfire	Northern California Wildfires	10/8/17-10/31/17	Northern California	~ 11 billion
Wildfire	Southern California Wildfires	12/4/17-12/23/17	Southern California	~ 2.2 billion
Hurricane	Harvey	2017	Texas, Lousiana	25+ million
Hurricane	Jose	2017	East Coast of the United States	25+ million
Hurricane	Irma	2017	Eastern United States	25+ million
Hurricane	Maria	2017	Southeastern United States, Mid-Atlantic States	25+ million
Hurricane	Nate	2017	Louisiana, Mississippi, Alabama, Tennessee and Eastern United States	25+ million
Tropical Storm	Alberto	2018	Southeast, Midwest	25+ million
Hurricane	Lane	2018	Hawaii	25+ million
Tropical Storm	Gordon	2018	Southeast, Gulf coast of the United States, Arkansas and Missouri	25+ million
Hurricane	Florence	2018	Southeast, Mid-Atlantic	25+ million
Hurricane	Michael	2018	Southeastern and East Coasts of United States	25+ million
Wildfire	Spring Creek Fire	6/27/18-7/11/18	Spring Creek, Colorado	< 100 million
Wildfire	Carr, Mendocino California Wildfires	7/23/18-8/15/18	Northern California	>1,000 million
Wildfire	Northern California Camp Wildfire		Butte County, California	>7.5 billion
Wildfire	Southern California Woolsey Wildfires		Los Angeles and Ventura County, California	2.9 billion
Hurricane	Dorian	2019	Southeast, Mid-Atlantic	500+ million
Hurricane	Barry	2019	Southeast, Midwest, Northeast	300+ million
Tropical Storm	Imelda	2019	Plains, Southeast	25+ million
Tropical Storm	Nestor	2019	Southeast	25+ million
Hurricane	Lorenzo	2019	Louisiana, Mississippi, Texas and Arkansas	25+ million
Wildfire	Saddleridge Wildfire		Sylmar, Los Angeles, Calimesa, Riverside County, California	<1,000 million
Wildfire	Kincade Wildfire		Northeast of Geyserville, Sonoma County, California	<1,000 million
Tropical Storm	Cristobal	2020	Southeast, Plains, Midwest	150 million
Tropical Storm	Fay	2020	Southeast, Northeast	400 million
Hurricane	Hanna	2020	Texas	350 million
Hurricane	Isaias	2020	Southeast, Mid-Atlantic, Northeast	> 3 billion
Hurricane	Laura	2020	Plains, Southeast, Mid-Atlantic	> 4 billion
Hurricane	Sally	2020	Southeast (Alabama, Mississippi, Louisiana)	> 4 billion > 1 billion
Tropical Storm	Beta	2020	Plains, Southeast	25+ million
Hurricane	Delta	2020	Gulf Coast of United States, Southeast, Northeast (AL, GA, NC, SC, MS, LA, TX)	> 25+ million
		2020	Gulf coast of United States, Southeast, Northeast (AL, GA, NC, SC, MS, LA, TA)  Gulf coast of the United States, Southeastern United States, Mid-Atlantic	> 2 billion > 1.5 billion
Hurricane	Zeta Compren Book			
Wildfire	Cameron Peak	08/13/20-12/02/20	Roosevelt National Forest, Larimer County, Colorado	~71 million
W'116	CCLLL'ald'a Complex Will	0/16/20 0/16/20	San Franciscon Bay Area, Central Valleym Santa Clara, Alameda, Contra Costa, San Joaquin,	<1.000 ''''
Wildfire	SCU Lighting Complex Wildfire	8/16/20-9/16/20	Merced, Stanislaus	<1,000 million
Wildfire	Beachie Creek Wildfire	8/16/20-10/10/20	Approx. 2 miles south of Jaw Bones flats in rugged terrain deep in the Opal Creek Wilderness.	>1,000 million
Wilfire	CZU Lightning Complex Wildfire	8/16/20-9/22/20	San Mateo and Santa Cruz Counties, California	>1,000 million
Wildfire	LNU Lightning Complex WildFire	8/17/20-10/2/20	Lake, Napa, Sonoma, Solano, and Yolo Counties, California	> 1,000 million

Wildfire	Carmel Fire	8/18/20-9/4/20	Carmel Valley, California	<1,000 milion
Wildfire			Plumas and Butte Counties, California	<1.000 milion
Wildfire	Creek Fire		Fresno and Madera Counties, California	<1,000 milion
Wildfire	Bobcat Fire	9/6/20-10/23/20	Central San Gabriel Mountains, in and around the Angeles National Forest California	< 1,000 million
Wildfire	Babb Road Fire	9/7/20-9/18/20	Malden and Pine City, Palouse County of Eastern Washington	<1,000 million
Wildfire	Almeda Fire		Jackson County, Oregon	<1,000 milion
Wildfire	Holiday Farm Fire		Willamette National Forest	<1,000 milion
Wildfire	Echo Mountain Complex Fire	9/7/20-9/23/20	north of Lincoln City, Oregon	<100 milion
Wildfire	Riverside FIre	9/8/20-10/3/20	Valley Drive between Misty Ridge Drive and Mitchell Avenue, Oregon	<100 milion
Wildfire	Slater Fire	9/8/20-10-9/20	Northern California and Southern Oregon	<100 million
Wildfire	Glass Fire	9/27/20-10/19/20	Napa and Sonoma Counties, California	> 1,000 million
Wildfire	East Troublesome Fire	10/14/20-11/9/20	Grand County, Colorado	~543 million
Tropical Storm	Claudette	2021	Gulf Coast of the United States, Georgia, Carolinas	> 350 million
Hurricane	Elsa	2021	East Coast of the United States	1.2 billion
Tropical Storm	Fred	2021	Eastern United States (particularly Florida and North Carolina)	1.3 billion
Hurricane	Henri	2021	Northeastern United States	550 million
			Gulf Coast of the United States (especially Louisana), East Coast of the United States (especially the	
Hurricane	Ida	2021	Northeastern United States)	44 billion
Tropical Storm	Nicholas	2021	LA, TX	>1.1b
Tropical Storm	Wanda	2021	Southern United States, Mid-Atlantic United States, Northeastern United States	>200 million
Wildfire	Bootleg Wildfire 7	7/17/21-8/6/21	Northwest of Beatty, Oregon	<1,000 million
Wildfire	Dixie Wildfire 7	7/14/21-10/5/21	Butte, Plumas, Tehama, Lassen and Shasta Counties, California	>1,000 million
			El Dorado National Forest and other areas of the Sierra Nevada in El Dorado, Amador, and Alpine	
Wildfire	Caldor Fire 8	8/14/21-10/5/21	County, Calfornia	<1,000 million
Wildfire	Corkscrew Fire 8	8/15/21-8/30/21	Ford, WA; Tum Tum, Springdale, City of Deer Park, Loon Lake, Clayton, H395, Scoop Mt	<100 million
Wilfire	Marshall Fire 1		Boulder County, Colorado	~ 2 billion
Wildfire	Calf Canyon/Hermits Peak Fire	4/6/22-8/22/22	San Miguel County, Mora County, Taos County	> 25 million
Wildfire	McKinney Fire	7/29/22-9/7/222	Siskiyou County, Northern California	> 25 million
Wildfire	Cedar Creek Fire	8/1/22-present	Central Oregon	> 25 million
Wildfire	Mosquito Fire	9/6/22- present	Northern California, Placer County, El Dorado County	> 25 million
Hurricane	Hurricane Fiona	9/18/22-9/20/22	PR	>3 billion
Hurricane	Ian	9/23/22-10/2/22	Florida and the Carolinas, FL, GA, NC, SC, VA	>110 billion
Hurricane	Hurricane Nicole	11/9/22-11/11/22	FL, GA, SC	>1 billion
Wildfire	Hawaii Wildfire	8/8/23-8/17/23	Hawaii	> 25 million
Hurricane	Hurricane Hilary	8/17/23-8/22/23	West, Southwest United States	> 25 million
Wildfire	Washington Wildfire		Washington	> 25 million
Hurricane	Hurricane Idalia	8/27/23-8/31/23	Southeastern United States	> 25 million
Hurricane	Hurricane Lee	9/14/23-9/17/23	Northeast United States	> 25 million
Tropical Storm	Ophelia	9/22/23-9/26/23	East Coast of the United States	> 25 million

	Event Type	Begin		Event	Country	Affected Area (Detail)	Munich Re NatCATService Insured losses (in original values, US\$m) Criteria: insured losses equal/greater US\$ 25m. Tries to reflect non-US losses only	Swiss Re Sigma: Insured Loss Est. US\$m (mid point shown if range given) Mostly reflect total US and nonUS losses combined.	
	Earthquake	07/07/2014		Earthquake	Mexico, Guatemala		N/A	N/A	25+milion
	Earthquake	04/01/14		Earthquake	Chile		N/A	N/A	100+milion
	Earthquake	12/02/2014		Earthquake	China		N/A	N/A	350+milion
	Earthquake	05/04/2014		Earthquake	China		N/A	N/A	80+milion
	Earthquake	05/05/2014		Earthquake	Thailand		N/A	N/A	62+milion
	Earthquake	05/24/14 06/14/14		Earthquake	China		N/A N/A	N/A N/A	60+milion
2014 2014	Tropical Storm Super Typhoon	06/14/14	06/16/14 07/11/14	TS Hagibis STY Neoguri	China Japan		N/A N/A	N/A N/A	131+milion 100+milion
	Super Typhoon	07/06/14		STY Rammasun	<b>Јара</b> п	Philippines, China, Vietnam	N/A N/A	N/A N/A	570+milion
2014	Typhoon	07/13/14	07/24/14	TY Matmo		Taiwan, China, Philippines	N/A	N/A	570+milion
	Cyclone	01/10/14		CY Ian	Tonga	raiwan, Omna, rimppinos	N/A	N/A	48+milion
	Cyclone	04/10/14		CY Ita	Australia		N/A	N/A	1+billion
	Wildfire	Summer 2014	0 17 17 17	Northwest Territories Fire	Canada	Northwest Territories, Canada		1971	~\$3.6b
2015	Hurricane	08/16/92	08/28/92	Hurrican Andrew	Bahamas	Bahamas			> 25 million
	Hurricane	10/20/15		Hurricane Patricia		Central America, Mexico	N/A	N/A	> 25 million
	Typhoon	06/26/15	07/13/15	Typhoon Chan-hom (Falcon)		Guam, Northern Mariana Islands, Philippines, Japan, Taiwan, Chian, Korea, Russian Far East	N/A	N/A	> 25 million
2015	Severe Tropical Storm	07/01/15	07/10/15	Severe Tropical Storm Linfa (Egay)		Philippines, Taiwan, China	N/A	N/A	> 25 million
2015	Typhoon	07/02/15	07/18/15	Typhoon Nangka		Marshall Islands, Mariana Islands and Japan	N/A	N/A	> 25 million
2015	Typhoon	07/29/15	08/12/15	Typhoon Soudelor (Hanna)		Mariana Islands, Japan, Philippines, Taiwan, Eastern China and South Korea	N/A	N/A	> 25 million
2015	Typhoon	08/13/15	08/30/15	Typhoon Goni (Ineng)		Mariana Islands, Japan, Philippines, Taiwan, China, Russia and Korea	N/A	N/A	> 25 million
2015	Severe Tropical Storm	09/06/15	09/11/15	Severe Tropical Storm Etau		Japan, Russian Far East	N/A	N/A	> 25 million
2015	Typhoon	09/19/15	09/30/15	Typhoon Dujuan (Jenny)		Ryukyu Islands, Taiwan, East China	N/A	N/A	> 25 million
2015	Typhoon	09/30/15	10/05/15	Typhoon Mujigae (Kabayan)		Philippines, Vietnam and China	N/A	N/A	> 25 million
2015	Typhoon	10/12/15	10/21/15	Typhoon Koppu (Lando)		Northern Mariana Islands, Philippines, Taiwan, Ryukyu Islands	N/A	N/A	> 25 million
2015	Typhoon	12/03/15		Storm Desmond		Ireland, Isle of Man, United Kingdom, Iceland, Norway and Sweden	N/A	N/A	> 25 million
	Hurricane	09/28/15		Hurricane Joaquin		Caribbean Islands, Portugal	N/A	N/A	> 25 million
	Earthquake	04/27/15		Earthquake	Nepal		N/A	N/A	> 25 million
2015	Earthquake	09/22/15		Earthquake	Chile		N/A	N/A	> 25 million
2015	Wildfire	11/25/15	12/02/15	Pinery Bushfire	Australia	Lower Mid North, Light River, West Barossa, South Australia, Australia			\$75m
2015	Wildfire	12/25/15		Wye River, Separation Creek bushfires,	Australia	Great Ocean Road region of Victoria, Australia			~\$110m
	Hurricane	08/28/16		Hurricane Hermine	-	Dominican Republic, Cuba, The Bahamas	N/A	N/A	> 25 million
2016	Tropical Cyclone	02/16/16	02/22/16	TC Winston		South Pacific Islands	N/A	N/A	> 25 million
	Earthquake	02/06/16		Earthquake	Taiwan	Asia	N/A	N/A	> 25 million
	Earthquake	01/03/16		Kaohsiung EQ	India, Bangladesh, Myanmar	Asia	N/A	N/A	> 25 million
	Earthquake	02/14/16	0.4/4.0/1.0	Christchurch EQ	New Zealand	Oceania	N/A	N/A	> 25 million
	Earthquake	04/14/16		Kumamoto EQs	Japan	Asia	N/A	N/A	> 25 million
2016	Earthquake	04/16/16		Ecuador EQ	Ecuador	South America	N/A	N/A	> 25 million

2016	Tropical Cyclone	05/14/16	05/23/16	CY Roanu	Sri Lanka, india, Bangladesh, China	Asia	N/A	N/A	> 25 million
	Earthquake	08/24/16	00/20/10	Italy EQ	Italy	Europe	N/A	N/A	> 25 million
2016	Tropical Cyclone	09/14/16	09/16/16	STY Meranti	China, Taiwan, Philippines	Asia	N/A	N/A	> 25 million
2016	Tropical Cyclone	07/08/16	07/12/16	STY Nepartak	China, Taiwan	Asia	N/A	N/A	> 25 million
2016	Tropical Cyclone	09/26/16	09/29/16	TY Megi	Taiwan, China	Asia	N/A	N/A	> 25 million
	Earthquake	09/10/16	00/20/10	Kagera EQ	Tanzania, Uganda	Africa	N/A	N/A	> 25 million
2016	Tropical Cyclone	08/29/16	09/01/16	TY Lionrock	China, Japan, South Korea	Asia	N/A	N/A	> 25 million
2016	Tropical Cyclone	09/19/16	09/22/16	TY Malakas	Japan, China	Asia	N/A	N/A	> 25 million
2016	Tropical Cyclone	08/18/16	08/20/16	TS Dianmu	China, Vietnam	Asia	N/A	N/A	> 25 million
2016	Tropical Cyclone	07/31/16	08/03/16	TY Nidia	China, Phillippines Vietnam	Asia	N/A	N/A	> 25 million
2016	Tropical Cyclone	08/02/16	08/10/16	HU Earl	Belize, Mexico, Carribbean Islands	Caribbean Islands, Mexico and Central America	N/A	N/A	> 25 million
2016	Tropical Cyclone	08/22/16	08/23/16	TS Mindulle	Japan	Asia	N/A	N/A	> 25 million
2016	Tropical Cyclone	09/06/16	09/08/16	HU Newton	Mexico	North America (non-U.S.)	N/A	N/A	> 25 million
2016	Tropical Cyclone	10/04/16	10/07/16	STY Chaba	Japan, Korea	Asia	N/A	N/A	> 25 million
2016	Tropical Cyclone	10/16/16	10/22/16	STY Haima	Phillipines, China	Asia	N/A	N/A	> 25 million
2016	Tropical Cyclone	10/14/16	10/22/16	TY Sarika	Phillipines, China, Vietanm	Asia	N/A	N/A	> 25 million
	Earthquake	10/26/16	10/20/10	Central Italy EQ	Italy	Europe	N/A	N/A	> 25 million
	Earthquake	10/20/16		Central Italy EQ			N/A N/A	N/A	> 25 million
					Italy	Europe			
2016	Earthquake	10/21/16		Tottori	Japan	Asia	N/A	N/A	> 25 million
2016	Hurricane	09/28/16	10/10/16	Hurricane Matthew		Carribbean Islands and Eastern Canada	N/A	N/A	> 25 million
2016	Hurricane	08/28/16	09/06/16	Hurricane Hermine		Dominican Republic, Cuba, The Bahamas	N/A	N/A	> 25 million
2016	Wildfire	01/06/16		Waroona-Yarloop Bushfire	Western Australia				~\$71.25m
2016	Wildfire	05/01/16	05/26/16	Canada Wildfire	Canada	Fort McMurray			\$3.52b
2016	Wildfire	11/22/16	11/27/16	November 2016 Israel Fires	Israel	Various regions in Israel, mainly in Haifa, Judaean Mountains and the Sharon Plain			>\$25m
2017	Earthquake	01/18/17		Earthquake	Italy	Europe	N/A	N/A	> 25 million
	Earthquake	01/28/17		Earthquake	China	Asia	N/A	N/A	> 25 million
2017	Earthquake	02/10/17		Earthquake	Philippines	Asia	N/A	N/A	> 25 million
	Earthquake	03/27/17		Earthquake	China	Asia	N/A	N/A	> 25 million
	Cyclone	03/28/17	04/05/17	CY Debbie	Australia	Queensland, New South Wales, New Zealand	N/A	N/A	> 25 million
2017	Earthquake	05/11/17		Earthquake	China	Asia	N/A	N/A	> 25 million
2017	Typhoon	07/29/17	07/31/17	TY Nesat & TS Haitang	China, Taiwan, Philippines	Asia	N/A	N/A	> 25 million
	Typhoon	08/07/17	08/09/17	Typhoon Noru	Japan	Asia	N/A	N/A	> 25 million
	Earthquake	08/08/17		Earthquake	China	Asia	N/A	N/A	> 25 million
2017	Typhoon	08/23/17	08/24/17	TY Hato	China	Macau, Hong Kong	N/A	N/A	> 25 million
	Typhoon	08/25/17	08/28/17	TY Pakhar	China	Asia	N/A	N/A	> 25 million
2017	Hurricane	08/25/17	09/02/17	Hurricane Harvey		Caribbean Islands and Central America	N/A	N/A	> 25 million
2017	Hurricane	08/30/17	09/16/17	Hurricane Irma		Caribbean Islands and Cape Verde	N/A	N/A	> 25 million
	Hurricane	09/05/17	09/26/17	Hurricane Jose		Caribbean Islands and Eastern Canada	N/A	N/A	> 25 million
2017	Hurricane	09/16/17	10/03/17	Hurricane Maria		Caribbean Islands, UK, Francs and Spain	N/A	N/A	> 25 million
2017	Earthquake	09/07/17		Earthquake		Mexico, Guatemala	N/A	N/A	> 25 million
	Earthquake	09/19/17		Earthquake	Mexico	Mexico City	>200	N/A	> 25 million
	Hurricane	10/04/17		Hurricane Nate		Central America, Cayman Islands, Cuba Yucatan Peninsula	N/A	N/A	> 25 million
2017	Wildfire	06/06/17	1	Knysna Fires	South Africa	Knysna region of the Western Cape			~\$146m
	Wildfire	07/01/17	08/01/17	British Columnbia Wildfires	Canada	British Columbia			>\$78m
2017	Wildfire	10/15/17	10/16/17	Iberian Wildfires	Portugal	Northern Portugal and Northwestern Spain			~\$210m
2018	Earthquake	02/06/18	<b> </b>	Earthquake	Taiwan	Opum			> 25 million
	Earthquake	02/16/18	<del> </del>	Earthquake	Mexico				> 25 million
	Cyclone	02/09/18	02/20/18	CY Gita	Tonga, Fiji, Samoa, New Zealand				> 25 million
2010	Cyclone	02/03/10	02/20/10	U I GILA	runga, riji, samua, new zealanu	i			- 20 IIIIII0II

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	Earthquake	02/26/18		Earthquake	Papua New Guinea		> 25 million
	Earthquake	03/05/18		Earthquake CY Marcus	Papua New Guinea		> 25 million > 25 million
	Cyclone		05/07/40		V 0 0 1'A 1'		1 -
2018	Tropical Storm	05/23/18	05/27/18	Tropical Storm Mekunu	Yamen, Oman , Saudi Arabia		> 25 million
	Tropical Storm	06/02/18	06/07/18	Tropical Storm Ewiniar	Vietnam, China, Taiwan, Philippines and Ryukyu Islands	Guangdong Province, Jiangxi, Fujian, Zhejiang Provinces, and Hainan Island.	> 25 million
2018	Earthquake	06/18/18		Earthquake	Japan		> 25 million
2018	Super Typhoon	07/10/18	07/12/18	STY Maria	China, Taiwan, Guam and Japan	Fujian province, Yantze River Basin,	> 25 million
	, ,,				· ·	Japan's Ryukyu Islands	
2018	Tropical Storm	07/17/18	07/24/18	TS Sonh-Tinh	Vietnam, China, Loas	Japan, Russian Far East	> 25 million
2018	Tropical Storm	07/22/18	07/25/15	TS Ampil	China	Jiangsu, Zhejiang, Shandong, and Hebei	> 25 million
	Typhoon	07/27/18	08/03/18	TY Jongdari	Japan, China		> 25 million
2018	Earthquake	08/05/15	08/09/18	Earthquake	Indonesia		> 25 million
2018	Tropical Storm	08/09/18	08/15/18	TS Yagi	Philippines, China	Zhejiang, Anhui, Jiangsu and Shandong Provinces.	> 25 million
2018	Tropical Storm	08/13/18	08/19/18	TS Bebinca	China	Hong Kong, Guangdong and Hainan	> 25 million
2018	Typhoon	08/16/18	08/18/18	TY Rumbia	China	Shanghai, Jiangsu, Zhehiang, Anhui, Shandong and Henan	> 25 million
2018	Typhoon	08/23/18	08/25/18	TY Soulik	Japan, South Korea, China and Russia	Haenam County, South Jeolla Province	> 25 million
2018	Typhoon	09/04/18	09/05/18	RY Jebi	Japan, Mariana Islands, Taiwan, Japan, Russian Far East and Artic		> 25 million
2018	Earthquake	09/06/18		Earthquake	Japan	Hokkaido	> 25 million
2018	Super Typhoon	09/15/18	0918/18	STY Mangkhut	N. Mariana Islands, Philippines, China and Hong Kong		> 25 million
2010	Super Typhoon	09/13/16	0910/10	31 f Mangkhut	IN. Mariana Islands, Frillippines, China and Hong Kong		> 25 ITIIIIOIT
2018	Hurricane	Leslie	09/23/18	Hurricane Leslie	Azores, Bermuda, Europe	Azores, Bermuda, Madeira, Iberian Peninsula, France	> 25 million
2018	Hurricane	10/07/18	10/16/18	Hurricane Michael	Central American, Yucatan Peninsula, Cayman Islands, Cuba, Atlantic, Canad		> 25 million
2018	Wildfire	May-18	Aug-18	Sweden Wildfires	Sweden	ranging from north of Arctic Circle to the sourthern County of Scania.	>\$87m
2018	Wildfire	Jul-18		Greece Wildfires	Greece	Attica, Greece	~38.1m
2019	Cyclone	05/03/19	05/05/19	Cyclone Fani	India, Bangladesh		>500 million
2019	Earthquake	06/17/19		Earthquake	China		> 25 million
2019	Tropical Storm	08/01/19	08/08/19	Tropical Storm Wipha	China, Vietnam		> 25 million
2019	Typhoon	08/09/19	08/11/19	Typhoon Lekima	China		> 855 million
	Typhoon	08/15/19	08/16/19	Typhoon Krosa	Japan		>25 million
	Hurricane	08/31/19	09/07/19	Hurricane Dorian	Caribbean, Bahamas, Canada		>1 billion
	Typhoon	09/05/19	09/08/19	Typhoon Lingling	Japan, China, Korea		>5.78 billion
	Typhoon	09/08/19	09/09/19	Typhoon Faxai	Japan		> 7 billion
	Hurricane	09/19/19	09/22/19	Hurricane Humberto	Bermuda		>25+ million
	Hurricane	09/17/19	09/26/19	Hurricane Lorenzo	Portugal		>25+ million
	Earthquake	11/26/19		Earthquake	Albania		>25+ million
	Cyclone	11/08/19	11/11/19	Cyclone Matmo (Bulbul)	India, Bangladesh		>25+ million
	Typhoon	10/01/19	10/02/19	Typhoon Hagibis	Japan		> 7 billion
	Earthquake Wildfire	12/18/19 Sep-19	Mar-20	Earthquake Australian Bushfires	Philippines New South Wales, Queensland, Victoria, South Australia, Western Australia, Tasmania and Northern Territory		>25+ million ~910 million
2020	Earthquake	03/22/20		Earthquake	Croatia		>25+ million
	Cyclone	04/01/20	04/11/20	Cyclone Harold	Solomon Islands, Canuatu, Fiji, Tonga	<del>                                     </del>	> 25+ million
2020	Tropical Storm	05/31/20	5-77 1 1/ZU	Tropical Storm Amanda	El Salvador, Guatemala, Honduras		> 25+ million
2020	Tropical Storm	06/01/20	06/05/20	Tropical Storm Cristobal	Mexico, Guatemala, El Salvador		150 million
2020	Hurricane	07/25/20	07/27/20	Hurricane Hanna	Mexico		350 million
	Hurricane	07/28/20	08/01/20	Hurricane Isaias	Caribbean, Canada		> 3 billion
	Hurricane	08/22/20	08/25/20	Hurricane Laura	Caribbean		> 4 billion
	Typhoon	05/15/20	05/22/20	Typhoon Amphan	India, Bangladesh, Sri Lanka		15 billion
2020	. ,					1	
	Tropical Storm	06/03/20	06/04/20	Tropical Storm Nisarga	India		> 25+ million
2020	Tropical Storm Typhoon	06/03/20 08/03/20	06/04/20 08/04/20	Tropical Storm Nisarga Typhoon Hagupit	India China, Taiwan		> 25+ million > 100+ million

2020	Hurricane	10/05/20	10/12/20	Hurricane Delta	Jamaica, Nicaragua, Cayman Island, Yucatan Peninsula			> 2 billion
2020	Hurricane	10/24/20	10/30/20	Hurricane Zeta	Cayman Islands, Jamaica, Central America, Yucatan Peninsula, Ireland, United Kingdom			> 1.5 billion
2020	Cyclone	04/01/20	04/11/20	Cyclone Harold	Solomon Islands, Canuatu, Fiji, Tonga			> 25+ million
2020	Hurricane	10/31/20	11/14/20	Hurricane Eta	Colombia, Jamaica, Central America, Cayman Islands, Cuba, The Bahamas			> 7.9 billion
2020	Hurricane	11/14/20	11/19/20	Hurricane lota	ABC Islands, Colombia, Jamaica, Central America			> 1.4 billion
2020	Typhoon	11/22/20	11/23/20	Typhoon Goni	Philippines, Vietnam, Cambodia, Laos		;	> 400+ million
2020	Typhoon	11/08/20	11/15/20	Typhoon Vamco	Philippines, Vietnam, Laos, Thailand		;	> 400+ million
2020	Wildfire	10/04/20		Lake Ohau Fire	New Zealand	Northwest of Lake Ohau Village	~	-\$25m
2020	Wildfire	02/05/21		Perth Hills Wildfire	Australia	Shire of Mundaring, Shire of Chittering, Shire of Northam City of Swan	~	~\$63m
2021	Earthquake	01/14/21	01/14/21	West Sulawesi	Indonesia			> 58.1 million
2021	Earthquake	02/13/21	02/13/21	Fukushima Prefecture Offshore	Japan			1.3 billion
2021	Tropical Cyclone	05/17/21		Toropical Cyclone Tautae	India			> 25+ million
2021	Tropical Storm	06/19/21	06/23/21	Trophical Storm Claudette	Oaxaca, Veracruz, Atlantic Canada			> 25+ million
2021	Earthquake	06/21/21	06/21/21	China	Yunnan Dali		† †	> 25+ million
	Earthquake	06/21/21	06/21/21	China	Southern Qinghai			> 25+ million
2021	Hurricane	07/01/21	07/14/21	Elsa	Lesser Antilles, Greater Antilles, Venezuela, Colombia, Atlantic Canada, Greenland, Iceland			50 million
2021	Typhoon	07/16/21	07/31/21	In-fa (Fabian)	Philippines, Ryukyu Islands, Taiwan, China, North Korea			> 25+ million
2021	Trophical Storm	08/11/21	08/20/21	Fred	Lesser Antilles, Greater Antilles, Southern Quebec, The Maritimes			25 million
2021	Hurricane	08/13/21	08/21/21	Grace	Lesser Antilles, Greater Antilles, Yucatan Peninsula, Central Mexico			513 million
2021	Earthquake	08/14/21	08/14/21		Haiti			1 billion
2021	Hurricane	08/26/21	09/04/21	Ida	Venezuela, Colombia, Jamaica, Cayman Islands, Cuba, Atlantic Canada			> 250 million
2021	Earthquake	09/07/21	09/07/21	Guerrero	Mexico			200 million
2021	Earthquake	09/16/21			China			> 25+ million
2021	Hurricane	09/12/21	09/18/21	Nicholas	Yucatan Peninsula, Tamaulipas			1.1 billion
2021	Hurricane	09/10/21	09/11/21	Larry	Canada			80 million
2021	Cyclone	10/02/21	10/04/21	Cyclone Shaheen	Oman, Iran, India, Pakistan, United Arab Emirates, Saudi Arabia, Yemen			> 25+ million
2021	Earthquake	10/07/21	10/07/21		Japan			> 25+ million
2021	Tropical Storm	10/10/21	10/14/21	Tropical Storm Kompasu	Philippines, Hong Kong, China			245 million
2021	Earthquake	10/16/21	10/16/21		Indonesia			> 25+ million
2021	Tropical Cyclone	10/24/21	11/02/21	Apollo	Italy, Malta, Tunisia, Algeria, Libya, Turkey			> 25+ million
2021	Tropical Storm	10/31/21	11/07/21	Wanda	Atlantic Canada, Bermuda, Azores			> 25+ million
2021	Earthquake	11/14/21	11/14/21		Iran			> 25+ million
2021	Tropical Cyclone	12/14/21	12/18/21	Rai (Odette)	Caroline Islands, Palau, Philippines			> 25+ million
2022	Wildfire	01/15/22	02/28/22	Corrientes	Corrientes Province, Argentina			> 25+ million
2022	Earthquake	03/16/22		Fukushima Earthquake	Japan			2.8 billion
2022	Tropical Storm	04/08/22	04/12/22	Megi	Philippines			>25+ million
2022	Typhoon	08/28/22	09/07/22	Hinnamnor	Japan, Taiwan, Philippines, South Korea, Russian, Far East			>25+ million
2022	Earthquake	09/05/22		Luding Earthquake	Luding County in Sichuan province			>25+ million
2022	Hurricane	09/14/22	09/28/22	Fiona	Leeward Islands, Puerto Rico, Dominican Republic, Lucayan Archipelago, Bermuda, Eastern Canada, Saint Pierre and Miquelon, Greenland			660 million
2022	Hurricane	09/23/22	10/02/22	lan	Trinidad and Tobago, Venezuela, Colombia, ABC Islands, Jamaica, Cayman Islands, Cuba			> 110 billion
2022	Hurricane	10/07/22	10/10/22	Julia	Trinidad and Tobago, Venezuela, ABC islands, Colombia, Nicaragua, El Salvador, Honduras, Guatemala, Panama, Mexico			>400 million

2023	Wildfire	02/01/23	03/06/23		Chile		>25 million
	Earthquake	02/06/23	02/20/23		Turkey, Syria		> 25 million
	Cyclone	02/12/23	02/17/23	Gabrielle	New Zealand		> 25 million
	Typhoon	05/23/23	05/31/23	Mawar	Guam		> 25 million
	Earthquake	06/16/23		France Earthquake	France		> 25 million
2023	Wildfire	08/15/23	09/21/23	Kelowna Wildfire	Canada		> 25 million
2023	Wildfire	08/24/23	09/30/23	Bush Creek Wildfire	Canada		> 25 million
2023	Earthquake	09/08/23			Morocco		> 25 million
	Typhoon	07/26/23	08/01/23	Doksuri	Philippines, Taiwan, China, Vietnam		> 25 million
2023	Typhoon	08/26/23	09/03/23	Saola	Eastern Asoa		> 25 million
	Typhoon	09/03/23	09/07/23	Haikui	Philippines, Taiwan, China		> 25 million
2023	Typhoon	09/27/23	10/11/23	Koinu	China, Japan, Philippines		>25 million
2023	Hurricane	10/22/23	10/25/23	Otis	Southern Mexico, primarily Guerrero		> 25 million
2023	Earthquake	12/18/23		Jishishan Earthquake	China		> 25 million
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Source	e: Munich Re's NAT CAT	Γ Service, Sw	iss Re Sigma a	and Aon Benfield		 	