



## CHAPTER ONE

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Cutting from the 6th May 1920 edition of the *Shanghai Post*.

# SAVAGE TYPHOON HITS SOUTH CHINA SEAS

UNSEASONABLE  
CONDITIONS

NUMEROUS  
DISTRESS CALLS

FIVE SHIPS  
FEARED LOST

The storm that devastated the coast of Amoy yesterday has strengthened to a full typhoon and turned southwards. The tempest is now believed to be savaging the heart of the South China Sea, from which five ships have already sent desperate distress calls.

The freak weather conditions have been described by experts as 'unseasonably early in the year'. Captain MacWhirr of the *Man* St.

THE TYPHOON HAD CHOSEN ITS QUARRY THAT NIGHT AND WAS chasing hard: an injured ship, a straggler showing signs of battle damage, hounded to exhaustion across the Celebes Sea.

### STEERING WITH PROPELLERS

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*On a twin-propellered ship, one propeller (or screw) is positioned on the starboard side of the rudder and the other on the port. A ship can be made to turn without use of its rudder by rotating one propeller faster than the other.*

Her name could be picked out on her stern in the momentary brilliance of a lightning flash – RESEARCH SHIP EXPEDIENT. The vessel pitched and yawed, corkscrewing through crazy angles. And the typhoon was winning; for the last day, the course of the ship had been uncertain. The stern gear, damaged during the secret mission to Wenzi Island, had finally given out. She was now steering with propellers, a perilous prospect in such wild conditions.

As the *Expedient* crested a thirty-foot wave, Douglas MacKenzie, wearing oilskins and a sou'wester that made him look older than his thirteen years, clutched the binnacle, checked his lifeline, and gritted his teeth. He'd been in storms at sea before, but never anything like this. The ship seemed to hang on the crest for a moment then tip forward, her engine note rising as the propellers lost grip. The hull pivoted and slid down the wave trough like some hellish fairground ride. A relentless wind snatched words from the mouths of anyone who dared speak.

"Get below ... hot drink ... end of watch..." bawled Ives, the coxswain.

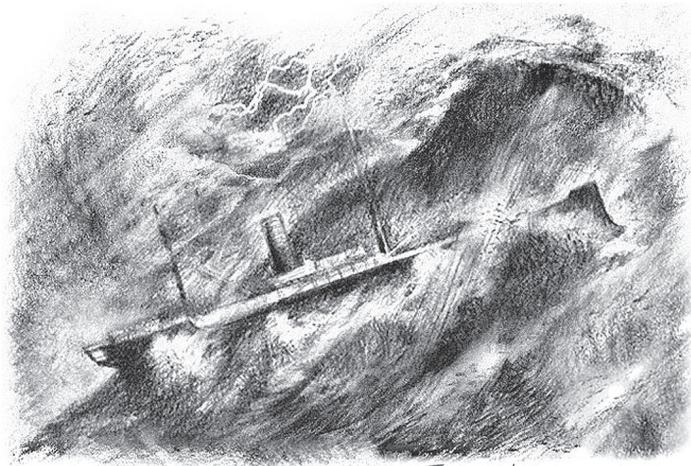
Doug tapped Xu, his watch mate, on the shoulder.

"Sujing Cha!" shouted Xu, pushing Doug back as a wave burst against the ship.

"What ... does ... that actually mean?" yelled Doug, laughing and wiping the stinging salt water from his eyes.

Xu cupped his hand to Doug's ear and bellowed, "It means: *this is a very dangerous enterprise!*"

They made their way aft, almost dancing over the pitching bridge deck. The ladders led them down to the shelter deck, which Doug had learnt was the most treacherous place to be. As each wave broke over the bow a deluge of foaming white water swept along the length of the deck. Overhead lifelines had been rigged along the port and starboard alleyways; Xu and Doug timed it carefully, jumping and swinging up on the



From Doug's sketchbook.<sup>1</sup> (DMS 2/99)

*Typhoon! DM. May 1920*

lifeline as the cataract surged beneath them. As the water swirled through the scuppers, they dropped down and made a final dash for the galley.

"Close that door, for heaven's sake!" called Mrs Ives.

The sudden rush of air as they entered sent up a genie-like cloud of smoke from the stove.

"Evening, Mrs Ives," chimed Doug and Xu.

<sup>1</sup> The picture above is from one of Doug MacKenzie's sketchbooks. Most of Doug's sketches were drawn from memory (or, as in this case, partly imagined), and may not be accurate representations of the people and events in this account.

"Oh, it's you two. It's tinned herring and biscuits. Cold."

Cold, hot – Doug didn't care. He'd eat anything.

"Can't cook with the 'Pedie buckin' about like this. Hang your sou'westers on the door; I'm just tryin' to draw the range proper, and we might manage a nice cup of cocoa."

They wedged themselves on the bench between the rough wooden table and the bulkhead, the best place to be in a storm.

"Captain says we're nearly there," continued Mrs Ives as she emptied a coal scuttle into the stove. "He's about to ditch the submarine over the side. Seems a bit of a waste, but Captain knows best."

"He's doing what?"

"Something about gettin' us over a reef and the steering being broken... There's flooding in the after compartments too, that's why we're wallowin' so. Now, just pass me that tea kettle..."

Another cloud of smoke ballooned up as Doug and Xu bolted out of the galley and ran aft, narrowly dodging another rush of sea water.

The submarine hangar was a collapsible deckhouse tucked between the main island of the ship's upper works and the poop deck. The panels of the deckhouse had been removed to expose the rounded metallic side of the small research submarine, the *Galacia*. She was mounted on a wheeled cradle that slid on rails to allow her to be launched. Nine of the crew were battling with securing lines to steady the sub, which seemed ready to break free.

Another torrent crashed aft; the stern of the *Expedient* was swamped. Doug clutched at a rope and waited as the broiling water surged to knee height. The ship wavered, then steadied

and broke free. The submarine cradle creaked and moaned as its huge load shifted with the erratic motion of the ship.

Doug saw his uncle, Captain Fitzroy MacKenzie, teeth gritted against the gale and lashing rain. Normally he carried a walking stick, but now he gripped a deck hydrant with one hand and gesticulated with the other. "Doug! Xu! Clap a hand on that line. There, behind Ten Dinners."

"It's no good, Captain," shouted Ten Dinners. "The third bolt's sheared. We can't hold her!"

"Chambois. Monsieur Chambois! Get out of there!" the captain bellowed.

The ship lurched to starboard, causing the mounting cradle to squeal and shudder. Luc Chambois's head emerged from the top hatch of the sub. "I have it! I have the molecule invigorator, Captain!" The Frenchman ducked down, then carefully lifted his invention through the hatch. With help from Posh Charlie, he soon had the steel-strengthening apparatus on deck. He wiped salt water from the dials with his sleeve. "I have saved it."

"I wish I could say the same for my submarine. Are the buoy and anchor attached?"

"Aye, Captain."

"Ten Dinners, pull the pin on the next starboard roll. The yaw of the ship will take her."

*Expedient* began to roll to starboard. The *Galacia* followed, shifting back with a screech as metal ground against metal. Charlie jumped clear, but slipped on the

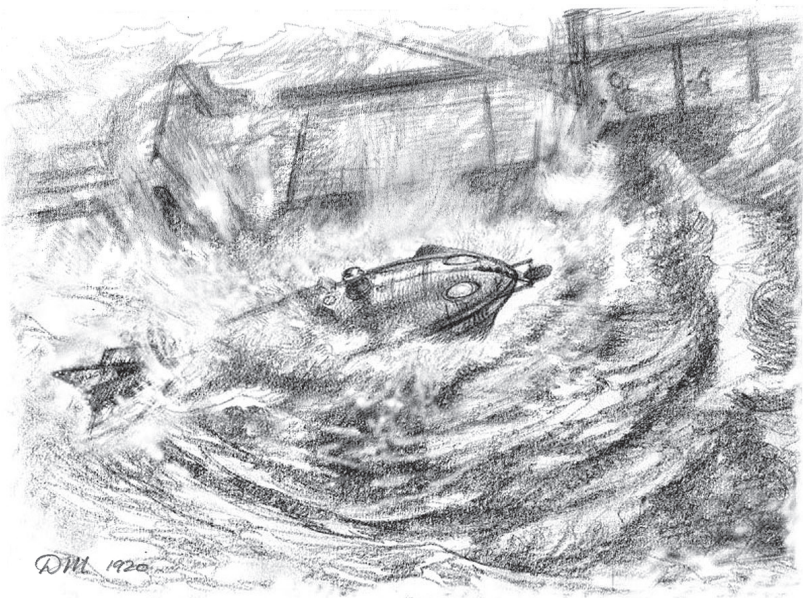


### THE MOLECULE INVIGORATOR

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*A machine invented by Luc Chambois to reinforce metal by strengthening its molecular bonds. It enabled the captain's submarine to dive to much greater depths than a normal vessel of its kind.*

*(See also Book I, Chapter 3.)*



*From Doug's sketchbook: The Galacia goes overboard. (DMS 3/06)*

wet deck as he landed. The moment was right to release the sub.

"Let go securing lines!"

The submarine glided across the deck, building to an astonishing speed within seconds. She crashed over the side, and was immediately swallowed up by the angry waters of the Celebes Sea. Charlie was still sliding about, grasping for a handhold, as the tide of foam swelled and filled the submarine hangar again.

"Here's a line!" Doug called out, grabbing a rope beside him. He threw it, but found himself also slithering on the pitching deck. He bundled into Charlie, causing them both to roll towards the scuppers.

"Not that line, Douglas!" shouted the captain. "That's *Galacia's* buoyed line. Let go and stand clear. *Stand clear*, I say!"

The *Expedient* levelled, allowing Charlie to stagger to his feet. But Doug was lying on the rope, which tugged backwards and whipped over the side, pulling him with it. Arms and legs flying, he shot clean past the gunwale and into the hungry sea.

The furious row of the typhoon was silenced as he went under. Doug kicked hard, striking out for the surface, his clothes dragging at him. He could hear and feel the propellers thrashing the water near by. Xu's words flashed through his mind as he broke the surface, gasping for air. *This is a very dangerous enterprise.*

The lightning was incessant, illuminating the clouds like Chinese lanterns, and the typhoon winds howled. Doug wondered, in a detached way, if he might die. After his recent experiences at the hands of the ruthless warlord Sheng-Fat, it was surprising that something as simple as lying on a rope might be the thing that actually did for him.

For a few tantalizing seconds, as the waves lifted him, Doug could see the *Expedient* framed in a flash of light. He'd always thought of her as a large ship, but she looked small and vulnerable as the typhoon attacked her, tearing at the wounds she'd suffered during the recent assault on Sheng-Fat's fortress.

Would they try to rescue him? There were no lifeboats left – they'd been destroyed on their davits by the zoridium explosion at Wenzhi Island. The ship's dinghy had survived, but Doug knew it would be swamped within seconds of launching on a sea like this.

Then, in the eerie glow of rolling

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#### ZORIDIUM

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*A highly explosive chemical which emits a characteristic blue smoke when detonated. Discovered before the splitting of the atom, its power was greater than any other known explosive in the early twentieth century. Sheng-Fat had forced Chambois to design and create zoridium-powered torpedoes at his fortress on Wenzhi Island. Also known as Daughter of the Sun.*



### STORM APPAREL

*Standard storm gear consisted of boots, oilskins and sou'wester.*

sheet lightning, he saw a figure wrap a line around itself and dive in. It surfaced moments later, rearing up on a magnificent white horse of breaking water. Doug tried to wave but he swallowed water and struggled to keep afloat. But his rescuer had seen him; he approached at a steady crawl, sometimes visible as the sea peaked and troughed. Choking and half blinded by spindrift, Doug kicked off his boots and started to swim as hard as he could, fighting the current at every stroke. Little by little his rescuer bobbed towards him.

It was Charlie. Doug struck out with his last reserves of energy, clawing and kicking the water. Charlie grabbed his shoulder with one hand, and cupped the other over his ear.

"N-n-not ... like you to ... go in at the deep end, Doug," he bellowed. "Here, tie a bowline around you, and they'll pull us back in."



"Wait. Just run this by me again. You're plannin' to crash this rusty tub onto *that* island?"

"Those were not my exact words. Do you have a better idea, Miss da Vine?"

During her five days aboard *Expedient*, Liberty da Vine had managed to clash with the captain daily. Liberty was a



## NAUTICAL TERMS AND EXPRESSIONS<sup>2</sup>

- BEAM:** *widest part of ship*
- BILGE PUMP:** *pump to remove water from bilges (lowest part of ship's hull)*
- BINNACLE:** *casing for ship's compass*
- BOOM:** *spar or pole to which foot of sail is attached*
- BUOYED LINE:** *rope used to attach float to anchored object it is marking*
- CAPSTAN:** *revolving cylinder used to wind heavy ropes or cables*
- CENTREBOARD:** *pivoted board that can be lowered through sailing boat keel to reduce sideways movement*
- CENTREPLATE:** *metal centreboard*
- CLINKER-BUILT:** *(of a boat) made of planks which overlap those below and are secured with clinched nails*
- DECKHEAD:** *underside of deck*
- DECKHOUSE:** *cabin constructed on top deck*
- FLUKE:** *barb of an anchor*
- FORE AND AFT:** *(of sail or rigging) set lengthwise from bow to stern*
- GAFF:** *vertical spar to which tops of certain sails are attached*
- GALLEY:** *ship's kitchen*
- JIB:** *triangular staysail set forward of mast*
- KNOT:** *unit of speed equal to one nautical mile an hour*
- MAINSAIL:** *principal sail of ship*
- MAINSHEET:** *sheet used to control and trim mainsail*
- NEAP TIDE:** *tide just after first or third quarters of moon, when least difference between high and low water*
- OILSKINS:** *set of garments made of oilskin (cloth waterproofed with oil)*
- PINTLE:** *pin or bolt on which rudder turns*
- PITCH:** *the rise and fall of ship's bow when moving forward*
- ROWLOCK:** *(pronounced rollock) fitting on boat's gunwale that supports oar while enabling it to pivot*
- SCUPPERS:** *holes in ship's side allowing water to drain from deck*
- SHEET:** *rope attached to lower corner of sail*
- SHEETS:** *space at bow or stern of an open boat*
- SHIP'S BOATS:** *small boats kept on board ship*
- SHROUDS:** *ropes running from mast-head to ship's sides to support mast*
- SNOTTER:** *fitting which holds sprit close to mast in a sailing boat*
- SOU'WESTER:** *waterproof hat with large flap covering neck*
- SPAR:** *strong pole used for mast or yard*
- SPINDRIFT:** *spray blown from crests of waves*
- SPRING TIDE:** *tide just after new or full moon, when greatest difference between high and low water*
- SPRIT:** *spar crossing a fore-and-aft sail diagonally*
- SPRITSAIL:** *sail extended by a sprit*
- STAY:** *large rope, wire or rod used to support mast*
- STAYSAIL:** *triangular fore-and-aft sail extended on a stay*
- STERN GEAR:** *general term for propeller, propeller shaft and steering system*
- SUPERSTRUCTURE:** *(of a ship) the parts, other than masts and rigging, above hull and main deck*
- THWART:** *crosspiece forming seat for rower in boat*
- TILLER:** *horizontal bar used to turn rudder*
- WARDROOM:** *officers' quarters on board a warship*
- WARP:** *heavy rope used for towing or mooring a ship*
- YAW:** *to swerve or steer off course*

<sup>2</sup> See also Book I, Chapter 2.

pilot and a Texan, although not necessarily in that order. She was also an escaped ransom hostage from Sheng-Fat's fortress, and had helped Doug and Becca survive their short stay on Wenzhi Island. Her bandaged left hand marked a recent injury – her little finger had been sliced off by Sheng as a memento to add to the ghastly finger-bone necklace he wore.

Captain MacKenzie was comparing a nautical chart taken from Sheng's junk with his own chart of the Celebes Sea; he'd been obliged to pin it to the chart table because the aft section of the wheelhouse was open to the elements after taking a direct hit from an artillery battery at Wenzhi Island. A tiny archipelago had been circled, and it was clear that this small scattering of islands was their destination.

"Sure I have a better idea. We can run with the storm."

"The storm has almost blown itself out. I must make urgent repairs to my ship. The starboard propeller shaft was put out of alignment and has burnt out four bearings. The main condenser is failing. The steering gear is damaged. The bilge pump is broken. We have flooding in the engine room, flooding in the forward hold, and four feet of water in the aft compartments. What's more, the capstan winch is smashed beyond repair, we have no wireless to call for help and the ship's boats are gone. I am therefore planning to beach, unless you would prefer a long swim to Borneo, or perhaps Mindanao."

"I'll swim to Monaco if I have to. I'm



### SHENG-FAT

*Notorious for his gruesome taste in human-bone jewellery, this brutal pirate warlord terrorized the South China Sea until he was murdered by his former partner Julius Pembleton-Crozier at Wenzhi Island.*

never, ever, gonna sail on this decrepit jalopy again."

"Ship, madam. We are aboard a ship."

"You should've taken us straight to civilization, darn it! Those hostages you rescued from Sheng-Fat oughta be in hospital. Half of them are a bunch of old women, and they've been shaken about like Annie Taylor down there. They need medical assistance! I need medical assistance!"

"Mrs Ives has been attending to them. I resent your accusations, madam, especially when they are delivered on the bridge of my own ship."

Rebecca MacKenzie, Doug's elder sister, lurched into the wheelhouse as Liberty stormed out. She steadied her binoculars from swinging on their neck strap, and gripped the edge of the chart table. She felt more tired than she'd ever been in her life, but her keen eyes glinted in the half-light. For the last day or so she'd dug deep into her reserves of resilience, determined not to be beaten by lack of sleep. She untied her sou'wester, pushed the dark mop of sea-tangled hair from her face and tapped her uncle on the shoulder.

He turned. "Rebecca. What news?"

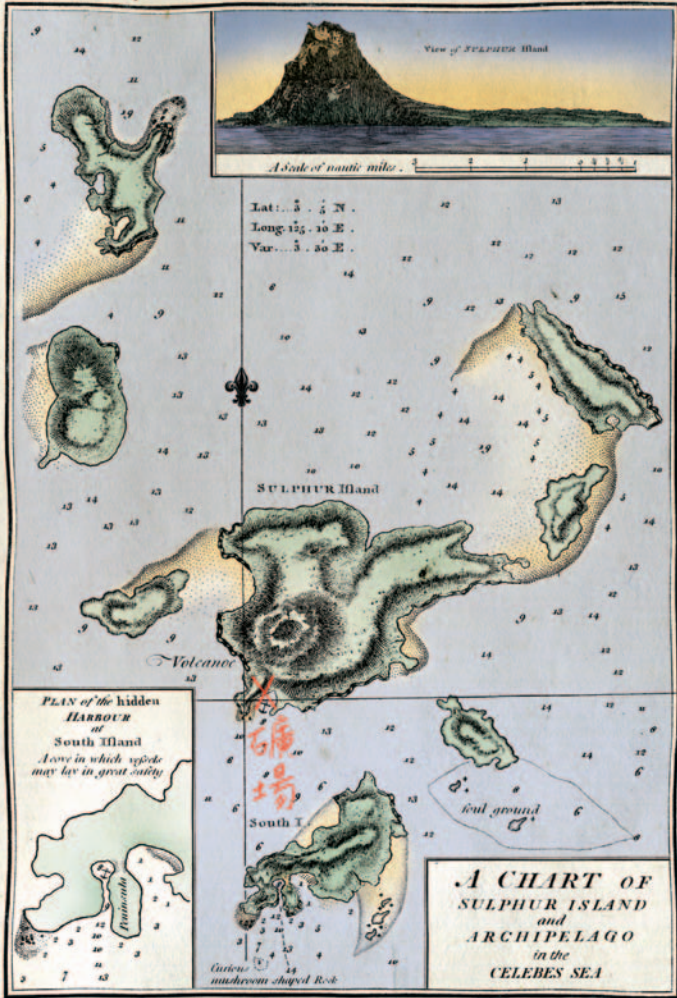
"The auxiliary bilge pump is broken as well as the main. They can't stop the flooding in the engine room; we are taking aboard about a foot of water every ten minutes. We're



### ANNIE EDSON TAYLOR

*On 24 October 1901, schoolteacher Annie Edson Taylor became the first person to go over the Niagara Falls and survive. She made the daredevil attempt in a pickle barrel in which the air pressure had been increased to 30 p.s.i. by a bicycle pump so that she could breathe. On surfacing she is quoted as saying, "No one ought ever do that again."*

Photograph used by permission of the Niagara Falls (Ontario) Public Library



**SHENG-FAT'S CHART OF THE SULPHUR ARCHIPELAGO**

*This chart was taken from the pirate warlord's junk at Wenzu Island and shows the location of Julius Pembleton-Crozier's archaeological dig for the ancient ship mentioned in Sheng-Fat's dying gasps. The inset peninsula map details the narrow tidal creek negotiated by the crew to secure Expedient in the hidden bay of South Island. Depths are marked in fathoms.*

sinking, Captain. Oh, and Doug says he's sorry for going overboard last night."

"I'm sure he is, niece. His seamanship leaves something to be desired."

"Captain, mushroom-shaped rock bearing Red 25," called out Vasto.

"Excellent. We've made the channel. It should lead us to a hidden bay which will answer our needs perfectly. The *Expedient* will hold out until we get there. Sheng-Fat's chart marks Pembleton-Crozier's base on the next island, three sea miles distant."

To starboard Becca could see the seas breaking as they hit shoal water and a reef half a mile off.

"Herr Schmidt?" the captain called down the speaking tube.

"Ja, Captain!"

"We're lying just off the island. Dead slow ahead both, if you please."

"Dead slow ahead both!" Schmidt's voice echoed back. "Captain, we have half an hour before we sink."

"That will be enough. Will the starboard propeller shaft hold out?"

"It's a mess down here. But the flooding is good for one thing – cooling the bearings."

In the gathering light, Becca saw an island covered with thick, lush vegetation. As they moved into the lee of the island the sea settled and the motion of the ship eased.



#### WOLFGANG SCHMIDT

*The Chief's vast knowledge of and passion for machinery was exceeded only by his love of music, particularly the great composer Wolfgang Amadeus Mozart (1756–91), after whom his parents had named him. He often described Expedient's engines as "a mechanical orchestra, of which I am the conductor".*

"Sam? Forward to swing the lead."

The narrow channel between the headlands was indistinct in the rain. Sheer cliffs rose straight up to a height of sixty feet, fringed with jungle. The ship was on course towards a small creek.

"Is the river going to be wide enough?" Becca asked, checking ahead with her binoculars.

"It's a tidal creek, not a river. According to the chart there's a cove beyond. The *Expedient* will be well hidden."

The headlands loomed larger and larger. They adjusted course again, but Becca could see it was going to be tight. They were becoming hemmed in on either side by outlying rocks and reefs.

The captain stepped out of the wheelhouse and shouted down to Slippery Sam on the fo'c'sle. "What's the depth?"

"By the mark, ten fathoms, Captain!"

The opening in the coastline seemed to swallow them up; there was little more than thirty feet of clear water on either side of the ship. Becca felt she could have leant out and touched the rocks that darkened and towered overhead as they steamed slowly down the channel, which began to widen into a large, circular cove. The land to starboard proved to be a peninsula connected to the main island by

an hourglass-shaped beach of fine volcanic sand.

"Starboard engine dead slow astern. Port engine dead slow ahead."

The *Expedient* began to pivot. The captain strode out onto the far end of the boat deck to get a better view.

"Port engine dead slow astern."

### TIDAL CREEKS

*Tidal creeks are coastal waterways affected by tides. At low tide there is frequently little or no water left in the channel; at high tide there is often significant depth.*

Doug appeared at Becca's shoulder. "He's reversing the ship!"

The propellers thrashed the shallow water as the vessel's stern ran aground on the hourglass beach.

"That'll do it. Engines stop," commanded the captain.

Ever so gently the *Expedient* glided ashore. She shuddered to a stop and, as the dying wind rattled through her shattered wheelhouse, seemed to give one last mournful sigh.





THE EXPEDIENT  
BEACHED ON  
SOUTH ISLAND

*Painted by Doug in  
1927. The back is  
inscribed in Becca's  
handwriting:*

Matched against my  
memories, this seems  
a fairly accurate  
rendering, although  
I fear that my dear  
brother has moved  
the *Expedient*  
somewhat in order  
to improve his  
composition.  
R.M. 1929.