

Main Characters

Alfonse Dubarry	<i>Geologist</i>
Marge Gilbert	<i>Physician</i>
Bill Strange	<i>Admiral, Member of the High Command</i>
Gord Olson	<i>General, Member of the High Command</i>
Lars Griebner	<i>Commodore, Member of the High Command</i>
Robert Marks	<i>Captain of the Star Ranger</i>
Wolf Spyder	<i>Officer on the Star Ranger</i>
Bill Dobbs	<i>Chief of Security</i>
George Richter	<i>Shuttle Pilot</i>
Joan Berger	<i>Ecologist</i>
Rick Muller	<i>Biologist</i>
Wendy Jackson	<i>Botanist</i>
Joe Hillary	<i>Psychiatrist</i>

Chapter 1

There was a loud bang and the ship shuddered. Abruptly it changed directions as if to avoid an obstacle. The lurching motion threw Alfonse Dubarry out of his bed. He landed hard against the ridge where the floor and the opposite wall met. The girders making up the frame of the ship groaned and creaked. There were more loud bangs and shudders. Somewhere far away he heard a wailing sound, muffled by the distance. And then the gravity failed while at the same time the warning klaxons sounded the alarm.

Alf Dubarry tried to sit up. He used far too much strength and now that the gravitational field was gone he flung himself across the small room. He hit the opposite wall and then slid upward. The ceiling stopped his motion. The impact was quite painful. He scraped some skin off his right arm but it did not bleed. Slowly and much more carefully he worked his way down to the bed and the straps holding the webbing which everybody was supposed to fasten on himself each night before he went to sleep. Only nobody had done it for a very long time.

He quickly got dressed and then climbed slowly back into the bed and secured the loose fitting webbing around himself. If there were any more explosions - he had quickly come to the conclusion that an explosion must have occurred somewhere. Nothing else could account for the bangs and the instability of the ship - if there were any more explosions the bed would be the safest place. If only the gravity would come on again! It was most unpleasant to have your stomach push against your gullet, particularly if it was full. And Dubarry's stomach felt still quite full from the big supper last night.

He looked at the clock. A quarter past two. They were more than halfway through the night cycle. What could have happened? Several minutes had passed since the first loud bang. Now the loudspeaker came on in his tiny cabin. He flinched at the volume of the announcement.

"First indications are that we have been hit by a meteor," the officer of the watch said. "All personnel stay where you are. We will be in touch with you individually. The ship has received some minor damage. Everything is under control."

Hit by a meteor? At their speed even a tiny pebble could be lethal. How large a meteor? And what about . . .

"Alfonse Dubarry," the speaker interrupted his thoughts. "Are you hurt?"

“No. I am all right.”

“Will you be able to give us a hand? Lieutenant Spyder is going to lead the damage control party.”

“Yes, Sir.”

“Make your way to the intersection of corridors B and K and wait there.” The speaker clicked off.

Dubarry released his webbing, being careful not to use too much leverage which might send him sailing across the room again. The intersection of corridors B and K was only a few steps away from his cabin. Using the handholds he hauled himself over to the door. Pulling on the handle he found it would not move. The door was stuck shut. He braced his feet against the frame and pulled with all this strength. Nothing happened. Well, this is a fine situation, he thought. Here I am imprisoned in my own cabin while lieutenant Spyder needs me desperately. His mind painted a picture of a huge hole sucking all the air out of the ship. They would all suffocate, every member of the crew, perhaps even become bloated and explode. That was what a human body would do in a vacuum, wasn't it?

Once more he pulled at the door, making sure that the manual lock inside was in the open position. The door remained stubbornly shut. What now? And was not the air getting thinner already? Had there not been a noticeable drop in air pressure?

Dubarry looked at the door. It was such a simple mechanism, an automatic locking device built into the handle and keyed to his thumb print. Ah yes, what if the recognition system was not working? The gravity was still off. Maybe the computer was damaged. There were the manual overrides. Quickly he checked for them. He dimly recalled the instructions the steward had given him when he had first come aboard. Yes, there were three of them. He found them without difficulty and released them. The door opened easily.

Pulling himself along the handholds in the corridor it took only seconds before he was at the designated intersection. Spyder was already there as were two navy ratings, both young like himself.

“Lieutenant,” he greeted Spyder, “what happened?”

“Alf Dubarry,” Wolf Spyder replied, “I don't know yet for sure. We figure a meteor hit two decks below and knocked out the gravity and a couple of auxiliary systems.” He looked up. “There are the other two. Come on, let's go.”

Spyder led his gang along corridor K for a dozen steps to an emergency drop shaft. Without hesitation he opened the access panel with his special key and stepped into the opening. The other five members of the damage control party followed him.

By now Dubarry found that he had achieved a certain expertise in moving around in zero gravity. His stomach still bothered him, but he could manage. He stepped into the drop shaft and grabbed the ladder

with his hands, pushing himself down. Suddenly he touched bottom. His mass carried on. With his arms he held onto the rungs of the ladder, trying to halt his motion downward. He bent his knees in an attempt to push his body up again. Then he felt a powerful jerk in his arms which made him lose his grip. At the same time his downward momentum ceased. He stepped out of the drop shaft into an utility corridor, just in time to avoid the feet of the navy rating following him.

A minute later everybody was present. Spyder sealed the drop shaft again. Dubarry found that they were in a small compartment, a little over a meter wide and about five meters long. The emergency airlock doors were in place at either end. Spyder opened a locker and pulled out six airtight coverall suits. They were stiff and not easy to bend.

“Put these on,” Spyder said, “and make sure that the zipper seal is started properly so that you will get an airtight connection. Do not forget to switch on the radio.” He handed out the suits and carefully stepped into one himself. All the members of the damage control party did likewise.

Spyder checked everybody and then went over his own suit again. Satisfied that everything was in order he pulled down a lever which started a vacuum pump.

“All suited up and ready to go,” he reported over the radio.

Dubarry was about to make an affirmative reply when he heard a strange voice say: “Proceed.”

At first he heard the thumping sound of the pump but it gradually faded out. Spyder led the way to the far door. Here two gauges were arranged side by side in the middle of the panel. One of them read zero while the other one was hovering below the number 25. As they waited it slowly fell towards the zero mark but did not quite reach it.

“Manual override,” Spyder said.

“Manual override,” a voice repeated over the radio, a different voice than before.

“Come on, all of you,” Spyder ordered. “This will not be easy to open. We still have a six percent atmosphere in here. Everybody grab a hoop and pull. It’ll be hard, so make sure you are well anchored.”

There were a number of hooped handles on the door. Dubarry took one and braced his feet against the wall. It was a tight squeeze as the others crowded in around him.

“Careful now,” Spyder said. “The door will be hard to move initially. Once you have it unhooked from its catch and the pressure is equalized the momentum will open it all the way. Let go as soon as you feel it move and get out of the way. On the count of three. One, two, three, heave.”

Dubarry pulled with all his strength. Did it move? He let go of the hoop and scrambled back as did the others. The door remained shut.

Spyder was standing some eight steps back. “You let go of the hoops

too soon. Try it again. Be careful. We have no gravity.” He waited while everybody grabbed a hoop again.

“Brace yourselves. Here we go. One, two, three, heave.”

Once more Dubarry pulled with all his strength. Suddenly he felt a click. The door began to open. He let go of his hoop as did the others. Slowly, like a mighty portal, the door opened into the compartment.

“Stand back,” Spyder ordered. He moved to the fore, stepping into the section beyond. One by one the others followed.

“Be careful that you don’t damage your suit on some sharp projection,” Spyder warned. “There is no air here.”

After ten steps he halted. There were black, impenetrable shadows all around. Spyder held a portable illuminator in his free hand while he anchored himself against the wall.

“There is quite a large hole in the paneling here,” Dubarry heard him report over the radio. “It’s about thirty centimeters across with jagged ends. There are melted metal globules everywhere. I can see right through the hole to the outside. The main power cable is severed. It looks like the meteor hit the bulkhead to the utility duct right in the center. Gosh, it is dark in here. The inside wall of the corridor has come loose at the joint with the next plate. I can see several other holes. I think we can effect repairs without difficulty. Robinson, you go and get a new bulkhead. It is in the spares room right next to where we came down. Take somebody along to help you. And remember, it has no weight but plenty of mass.”

“Aye, aye, Sir. Come along, Jorge.”

“We will have to go outside, Captain,” Spyder reported after a short pause.

“Can’t you effect the repairs from where you are?” came the reply.

“I’m afraid not. We’ll have to patch the holes in the outer skin.”

“Use the resin compounds. They’ll harden in a few minutes and will be tough as steel. And be careful. Use safety lines.”

“Aye, Sir.”

Second officer Spyder moved down the corridor, checking for additional damage. Everybody followed along, gaping at the big hole in the hull.

“Kruger, fetch some tools. We’ll have to remove the paneling to get at the power cable. When you splice it make sure - no, you better cut out the damaged section and replace it. We don’t want another failure on our hands. Smith, you take the bulkhead off. You and Robinson. Kirk, you give Kruger a hand. Dubarry, you come with me.”

On the bridge the captain sat in his command chair. There was nothing he could do at the moment. Until power was restored to the gravity generators he could not even permit the crew not on duty the use of the recreation rooms or the cafeteria. Everybody had to stay in his cabin. He hoped that Spyder could effect repairs quickly.

“Alf Dubarry, bring a couple of safety lines, the hundred meter ones. They are over there in the locker against the wall.” Spyder pointed towards the far corner.

“Aye, Sir.”

Dubarry had his helmet light switched on as had everybody else. Spyder also had a hand torch, but the illumination left much to be desired.

Dubarry pulled himself along the bar which was bolted to the side of the wall towards the far end under the watchful eye of the second officer who followed him. During the early part of the voyage they had practiced a scenario like this uncounted times. Then nobody had really expected to ever make use of the skills thus acquired. Now it seemed natural and responses were almost automatic. In a way it was just like another drill.

Spyder clipped several packages to his belt which contained the sealing patches and Dubarry put two safety lines over his shoulder.

“All right, let’s go, Alf, but slowly and carefully, from one handhold to the next. We are in no hurry.” They closed the locker and made their way ahead.

Suddenly Spyder stopped. Dubarry was thinking of the task ahead and realized too late that the second officer was doing something to the wall panel in front of him. Dubarry grabbed the handhold he had just released and halted his forward momentum, but not before slightly nudging his superior. Spyder acted as if he was unaware of it. In front of him the narrow section of wall opened into a companionway.

“This leads to an emergency airlock,” the second officer informed Dubarry. They both moved into the companionway and climbed a few steps. Behind them the spring loaded door banged shut again. Although there was no sound Dubarry could feel the vibration in the railing he was gripping with his left hand.

Up ahead Spyder was halting once more. After a few seconds he stepped back while a massive door swung inward.

“Come on, Alf, let’s move into the airlock. Here, give me the safety lines. I’ll clip them to the eyes here. Make sure that the other end is securely fastened to the harness of your suit.”

“Aye, Sir.”

“Fastening safety lines. Checked okay. Opening outer hull door.”

He doesn’t have to tell me every step he takes, Dubarry thought. I can see what he is doing. But he wisely refrained from making any comment.

“Be careful,” a strange voice said over the radio.

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Back on the bridge the first officer was monitoring the conversation.

“They are in the airlock, Captain,”

“Very good. Put it on the speakers. The crew has a right to know.”

The first officer pushed a couple of buttons tying in the ship-wide intercom.

“They have attached the safety lines and are opening the door to the outside. On C deck they have cut away the paneling and are about to replace the power cable.”

“Very good.”

“The door to the outside is now open and Spyder and Dubarry are leaving the airlock.”

* * *

As the door to the outside opened Dubarry had an unobstructed view of the distant stars. He stood mesmerized at the threshold. How very different it looked in reality compared to the screens on the bridge or in the large recreation hall! It was too bad that the ship did not have an observation deck. Here, outside, he could see the stars from horizon to horizon, many thousands of them, or so it appeared.

“Quite a view, isn’t it, Alf?”

“Yes, Sir. It looks so different to what it does from Earth. There seem to be so many more stars out there. Where is the sun? Can we see it from here?”

“No, it’s on the other side of the ship. But up there, that bright star, do you see it?” Spyder was pointing straight out. “That’s Vega.”

“Ah, still as bright as it appears from Earth. And where is Procyon?”

“It’s up ahead.” Spyder stepped outside, holding himself by one hand. “You can’t see it from this angle. The nose of the ship blocks it out. It’s just as well. It would be too bright to look at from this distance. We are about to begin our deceleration phase. Come on, let’s get the holes patched up before the captain loses his patience.”

“Aye, aye, Sir.”

But they made slow progress, stopping often to admire the star field.

“Careful now. We are just about on top of where the meteor struck,” Spyder said as he came to a halt. “I expect there will be several holes. Okay, Lieutenant Dubarry, check your safety line again. If you somehow lose your footing and drift away, we can’t mount a rescue effort.”

Dubarry checked the locking mechanism of his safety line. “I’m secure,” he said.

“All right. Now here is what I want you to do. Slowly sweep over the surface with your helmet light. It must be at the proper angle like this.” Spyder got down on his knees and carefully shone his light at a low angle over the surface. “If there is a small hole - or a large one - it will show up as a shadow. Then get close to it and make sure it is a hole and not a rivet or something. Here, take a marker and draw a circle around it. And be sure you count it, aloud. There may be several holes.” The second officer handed what looked like a crayon to Dubarry.

"How can you see the mark in this darkness?"

"Oh, that's a special paint. If I shine my light against it, the circle will glow. It has some fluorescent agent in it."

"I see. All right, here we go."

It was a slow job. Dubarry searched a portion of the skin. The second officer waited until Dubarry had covered a section and then searched the same region again. For many minutes there was silence as the two men went over a large area.

"I found something, Lieutenant," Dubarry suddenly shouted excitedly.

"Not so loud, Ensign. You found something?"

"Yes. This handhold here is almost gone."

"Where?"

"Right here in front of me."

Wolf Spyder carefully crept along the outside of the hull.

"By golly, yes. The entire handhold is gone. Boy oh boy, that must have been some meteor! And look at those metal globules! If that had hit the ship at the bridge or the engines ... We are lucky that it was only a grazing hit."

"Yes, indeed we are," Dubarry agreed.

"Lend me your light, Lieutenant. The portable one."

"What for? You can see by your helmet light. It's just as bright."

"Yes, I know. I want to check this from a different angle. Better yet, you keep the torch and shine it at the angles I'll give you. I think I can estimate the size and direction of the meteor."

"You can?"

"Yes, I think so. It is somewhat related to volcanology."

"It is related to what?"

"To the study of volcanoes. When a cinder cone is thrown up by a volcano, we can sometimes measure the speed at which it was expelled, and that in turn lets us calculate the force and hence the pressure of the lava inside the volcano. And with a degree of luck we can then guess the severity of the eruption. This may be quite similar."

"I suppose it can't hurt to try."

"Just move a few steps back. Yes, that's about right. Now raise the torch and slowly lower it. Now move a few steps counterclockwise. Right, that's fine. Let us repeat it once more. Okay - well, I don't know."

"What don't you know?"

"It looks like quite a large chunk of rock might have done it. How fast are we moving, Lieutenant?"

"I don't know exactly. Not much below the speed of light, I should think."

"I am sorry, in that case I can't tell you anything. As it approaches the speed of light mass approaches infinity. I can't make a guess. I am sorry."

"Let's look for the holes and patch them before another meteor

comes along. I think it would be a good Idea if we had a meteor shield. Maybe at some future time our ships will be equipped with one. All right, be careful that you don't tear your suit on the jagged edges."

"Here is a small hole, Lieutenant."

Dubarry put a circle around it with his marker. Spyder placed a pad over it and then pulled the center strip out. The pad bonded itself to the metal.

"This is almost like putting a band-aid on the ship." There was a chuckle in Spyder's voice.

They found one large hole and a number of smaller ones.

* * *

"They've got the power cable repaired, Captain. Shall I activate the gravity generators?"

"No, Number One. Hold off until the party outside is back in the airlock. I don't want to take any chances."

* * *

"All right, Lieutenant Dubarry, let's get back inside. We can't do any more out here. By now they should have almost completed the cable repair. Kruger is a good man. The captain will want to switch on the gravity generators as soon as possible."

"What was that, Lieutenant?"

"What was what?"

"Didn't you see the shadow occulting Vega?"

"No, I saw no shadow."

"Oh, I must have been mistaken. I thought I saw a shadow flit by."

"Maybe it was another meteor. Let's hurry and get back inside, Alf. But be careful. The mass is still there even if you do not have any weight. Don't get careless."

Quickly, yet cautiously, they made their way back to the airlock. Spyder secured the door to the outside and then they unclipped their safety lines. They left the airlock and Spyder closed and locked the inside door to it.

"We are now in the companionway leading to the utility corridor. Mind your step, Lieutenant, they'll put the gravity on any minute now."

"It won't be too soon for me. My stomach is not going to contain its food much longer." But even as he talked, Dubarry could feel the gradually returning gravitational field.

"Well done, Lieutenant Dubarry," the second officer said as they made their way back to the utility room. "Robinson should have the bulkhead replaced by now. How are you feeling, Alf?"

"Thank you, Sir. Fine Sir, excited. Now that it is over, I feel fine."

"It's something you can tell your grandchildren some day." Wolf Spyder laughed. "Come on, we'll have to report to the captain. I think

they are just about ready to flood this compartment with air.”

They were moving along the corridor from handhold to handhold. Although there was now some gravity it was still too weak to attempt to walk. To Dubarry it seemed a long way to where the rest of the damage control party was working.

“How is the bulkhead coming along, Robinson?” Spyder asked.

“We are just about finished here, Lieutenant. All I have to do is clamp it down. It won’t take long.”

Kruger and Kirk were just finishing welding the paneling back together.

“Are you sure it is airtight, Kruger?”

“Yes, Sir, I am quite sure. I put some of the resin compound between the plates at the overlap. We should have no problem. I’ll spray sealant on it after it has cooled down, Lieutenant.”

“Ready, Sir. We can pressurize the corridor now.” Kruger said.

“All right. Robinson, watch the gauge.”

After half a minute the lights lost their harshness. The pressure gauge began to climb. When the needle reached the green section Spyder unfastened his helmet and removed it.

“Thank goodness that is behind us. You guys can sign off. Lieutenant Dubarry, you come along. The captain is waiting.”

Spyder turned and carefully walked towards the airtight partition ahead. The gravity was still quite weak. He had to wait while the air pressure equalized. Then the partition slid into the wall. The gravity was also steadily increasing.

“That was a close call, Alf. I hope we won’t have another one. It’s a good thing that nobody got hurt. Imagine, a grazing meteor hit at this velocity!”

“It was also exciting, Wolf,” Dubarry replied. “When we trained for this type of emergency, I thought that we were wasting our time. But now I realize that you cannot predict what the future will hold.”

“No, you certainly cannot predict the future. All you can do is try to be prepared for any eventuality, Alf.”

“Yes, Wolf. That is all we can do.”

As Dubarry followed Wolf Spyder to the briefing room next to the bridge his thoughts drifted back to that day now more than eight years in the past, when he had taken the first step which would ultimately lead to the Star Ranger, the ship on which he was the planetologist. Their destination was the Procyon system. He clearly recalled how it all had begun.