

# GOOD SHOW ROGER SQUARED



By

John Karl Forrest and John Wayne Musselman

## Dedication

This story is dedicated to the memory and legacy of the crew, led by Flying Officer H.J. Musselman RCAF, DFC, that flew 30 missions in Lancaster Bomber ME-746 AS-R2 (aka Roger Squared).



Roger Squared crew all smiles after another op done and back on terra firma.  
Front Row: P/O J.M. Donnelly RCAF (MUG), W/O H.H. Park RCAF (NAV), SGT G. Reid RAF (BA) Back Row: F/S R. Williamson RAF (W/Op), F/O H.J. Musselman RCAF, DFC (PLT), F/S K. Forrest RCAF (RG), SGT J.R. Cogbill RAF, DFM (FE)

## **Good Show Roger Squared**

Air Chief Marshal A.T. "Butch" Harris sat hunched at his desk studying the latest reports. Aircraft availability and in particular the crews to man them, was at a critical point. Now, early in the new year of 1945 the focus of the air war had changed. The Allies were on full offensive. Missions to attack and bomb the industrialized cities, oil refineries and transportation hubs in the Nazi homeland had tripled in the last year. They were hitting the enemy hard, but the toll being taken by the appalling winter weather conditions, daylight raids, flak and fighters had been terrible. The casualty rate often rose above sixty percent and finding men and machines to replace those lost was a challenge. The grandfather clock in the corner struck the half hour; 11:30 p.m. At this moment at least 300 of his bombers were over enemy territory carrying out their missions. There was a knock at his door.

"Enter."

A uniformed clerk stepped into the room and approached.

"Yes Cpl. Baker, what is it?"

Baker extended a manila folder. "Recommendations for Honours and Awards Sir. I know you like to read them before turning in for the night." He glanced toward the clock.

"Soon I hope sir."

Harris smiled, "Yes, yes Baker."

"I know sir but ... ."

"Dismissed!" growled Harris.

"Sir!" Baker exited.

Harris returned to reading the report, then hesitated, made a notation, closed the folder and set it aside.

Baker was correct. Grounded by his rank and position, his most tangible contact with the missions he ordered and the men and machines he commanded was found in the reports recommending them for medals.

The accounts of their accomplishments, their resourcefulness and courage were reported tersely on official forms prepared by proud commanding officers.

He knew that hidden in the names and numbers in those reports there were personal tales of remarkable bravery, incredible skill and split second decision making by young men in the heat of battle. He opened the folder Baker had delivered and, as was his routine, scanned the initial information.

The recommendation was from Wing Commander Vivian, 166 Squadron and supported by Group Captain Mackay, RAF Kirmington, Air Commodore Swain, No. 13 Base Commander and Air Vice Marshal E.A.B. Rice, No. 1 Group Commander.

That Squadron had an excellent reputation. They had a skilled and dedicated Ground Crew and a good mix of new and experienced Air Crew. The 166<sup>th</sup> prided itself on putting up the required number for every flight and completing its missions. It lived up to the “Bulldog” displayed on its crest and the single word “Tenacity” in its motto.

This recommendation was significant; a Distinguished Flying Cross for a Lancaster pilot (Acting Flying Officer) Harold John Musselman (RCAF).

He noted Musselman had logged almost 125 hours on operations. He turned to the appended crew list. Lancaster Bomber ME -746 AS-R2 (Roger Squared), piloted by Musselman, included crew members; Flight Engineer Sgt. J.R. Cogbill, Navigator W/O H.H. Park (RCAF), Air Bomber F/S G. Reid, Wireless Operator F/S R. Williamson, Mid Upper Gunner P/O J.M. Donnelly (RCAF), and Rear Gunner F/S K. Forrest (RCAF).

No doubt graduates from the Lancaster Finishing School at Hemswell. He noted this was their 21<sup>st</sup> sortie as a crew, then leaned back into his chair and began to read Vivian’s remarks:

**“This Canadian Officer was detailed to attack Schloven - Buer as captain of aircraft on the evening of the 29<sup>th</sup> December, 1944. On the way out ... .”**

As he continued to read the room around him disappeared and he joined Musselman in

the cockpit of Roger Squared.

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Avro Lancaster ME -746 AS-R2 sat trembling on the hard stand, parked at right angles to the runway, her mighty Merlin engines idling, waiting to be unleashed.

*“Flight, how are we looking?”*

Flight Engineer, JR Cogbill turned in his “second dicky” seat, tapped a couple of the gauges on his right, checked others above and behind and gave his pilot thumbs up.

*“Great Skipper all four running well. Mag. readings steady on each. Corporal Terry and his crew were up all last night and spent most of today getting the airframe in to top shape. I dropped by on my way to briefing and he was just finishing painting the bomb symbol for her 84<sup>th</sup> mission on the fuselage.*

*“Cog, you know R2 is his prize possession and he just loans her to us for missions. You heard him when we did the walk around. He pointed out some of the recent repairs and practically ordered me to keep the flak hole count down tonight. He is determined to see his darling become a Century Lanc.”*

**A MK I Lanc with almost 100 missions noted Harris. A unique and lucky aircraft. Or would this mission end their streak?**

Pilot Musselman checked his watch. 15:30. The mission had been scheduled for 15:00 but a light rain and a heavy overcast had delayed take off. They had been idling too long.

“R2 to tower. Ready for take off.”

*“Roger R2 standby. You’re up next.”*

*“There goes Nicklin in A2 Sir.”*

*“You are cleared for take-off R2”*

*“Pilot to crew. Ok lads buckle in, we’re off on “lucky” number 21.”*

*“Flaps at 30 degrees Flight?”*

*“30 degrees Sir.”*

**Harris felt again the adrenaline rush of take-off and the nervous tension the crew would be experiencing. Having no idea of what lay ahead; they were, for the next 6 hours, trusting**

**their lives to a man, a machine and the grace of God.**

Musselman advanced the throttles, taxied into position on the runway and began to open them up. Roger Squared responded and the roar of the Rolls-Royce engines became deafening. The fuselage began to vibrate as she sped down the runway.

“I’ve got rudder control; take the throttles Cog.”

Musselman now grasped the control column with both hands waiting for the tail to come up and as take off speed was reached he pulled back on the column and R2 shed the shackles of earth’s gravity and began the climb to join the formation.

*“Gear - up and locked Skip.”*

*“Pilot to gunners. It’s crowded up here tonight lads. Set Course Time is just a few minutes away but keep a sharp look out and sing out if you spot any of our friends getting too close.”*

**Harris noted grimly Musselman’s concern. Far too many aircraft had been lost to collisions while “milling” on overcast nights waiting for their Set Course Time, when the stream would form up and head for the target.**

*“Pilot to navigator, cruising at 15,000 ?”*

*“Yes Sir.”*

*“Harry do you trust the “Met” report? They predicted this slop, but do you think the call for clearing weather over Schloven-Buer will hold?”*

Navigator Harry Park seated at his port side chart table curtained off from the cockpit checked his briefing notes.

*“I think so Sir. We should expect heavy cloud cover until we reach Schloven with some clearing on the return trip. Good news is, this lot is supposed to move on before we return to base.”*

*“Roger that and let’s hope so Parky.”*

He scanned ahead and then side to side. What he could see of the formation looked tight. He could even see intermittent flashes of blue exhaust flame from nearby aircraft and the stream was moving well. They were about half way across the Channel when he got the request he was expecting.

*“Mid Upper to Pilot; permission to test guns Sir?”*

*“Permission granted J.M. You and the kid can light ‘em up.”*

*“Roger that Skipper.”*

*“You too Bombs?”*

*“Aye sir.”*

There was a slight pause and then the sound of six Brownings firing short bursts dominated the engine noise and the airframe shook in response to their recoil. Then the pair of .303s in the nose turret opened up below his feet.

*“You sound ready Bombs”*

*“Aye Sir.”*

*“Test complete Sir, rear turret ready and able.”*

*“Mid-upper, same here Skipper.”*

*“Roger that, and let’s hope you don’t need them.”*

*“Well Cog we are in the groove, let’s sit back and enjoy the ride”*

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Musselman heard the sudden change in the sound of the engines and his aircraft shuddered. From experience he knew what it was, but he waited for confirmation.

*“We’ve got a problem Skip. The starboard inner has packed up. The gauges say she should be running but am looking at her and she is not. I’ll try a restart.”*

*“Navigator.”*

*“Sir”*

*“Parky, what’s our position?”*

*“ Sir, target is about forty five minutes away.”*

*“Roger that.”*

*“No luck with the restart Sir. Number 3 is done.”*

*“Right Flight; feather and will see if we can maintain altitude and stay with the stream.”*

*“That’ll be a tough go Sir, with the load we are carrying. We caught one of those new “Abnormal” packages; 14,000 pounds of HE and incendiaries.”*

*“Well we’re over Germany, so let’s give it a go and see what happens.”*

**Harris knew that with the Starboard Inner gone power would be lost to some of the main services and hydraulic pumps, despite this he noted the calm in Musselman’s voice.**

*“Pilot to crew. We’ve lost an engine boys. I’m going to drop to the rear of the formation but we will try to stay with the group. Gunners keep your eyes open, particularly you in the tail “kid”. If the fighters are up they’ll be looking for stragglers.”*

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*“More trouble Sir Number 1 is overheating badly and quickly. I recommend we shut her down. We’re going to have to finish this on two.”*

*“No choice?”*

*“Not right now. I can try a restart later.”*

*“Lucky number 21 eh, let’s hope some of that luck starts showing up soon. Shut her down Flight.”*

**Loss of power from the port outer engine would affect the alternator for special radio, rear turret hydraulic pump. It’s decision time thought Harris.**

*“Well that seals it. Cog. We can’t make altitude or even keep up. I don’t fancy scrubbing the mission and flying her home as a lame duck with a full bomb load.”*

*“Pilot to Navigator. Parky we are going to have to abort Schloven. Can you find an alternate?”*

*“They gave us three at briefing. Give me a minute Skipper.”*

R2 took this new development calmly but her air speed continued to fall and she began to drop out of formation.

*“Skipper, Duisburg is about 15 minutes away. It’s a large rail junction, noting predicted and accurate flak, fighters not likely. If we can maintain this air speed we should be able*



*to bomb and then intersect our stream on the way home.” “What’s the heading Harry?”*

*“Our Gee is not functioning Sir, so we are on dead reckoning. West north west will do for now.”*

*“Pilot to crew, another change in plans boys. We’re flying on two now. I’ve chosen an alternative target, Duisburg. This will be a tough one. Expect the usual flak but as a single at low altitude we will have the advantage of surprise. Fighters not likely. Harry thinks we can reconnect with our flight after the attack and ride their coat tails home. We are about 10 minutes away . God bless us.”*

**Tough decision, bravely taken admired Harris.**

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*“Bomb aimer to pilot, I’m in position Sir. All my instruments are functioning.”*

*“Roger that Bombs. Conditions are clearing, I can see the rail junction from here. I’ll make for it, then you can take your best shot. We’ll be at 9,000 over the target.”*

*“Aye Sir.”*

*“Well Flight this will be a shaky do. But their defenses should be pre-set for 12 to 15 and we can sneak under them for much of the run. They shouldn’t be expecting us from this direction; so the plan is to get in and out before they know what hit them. Once we bomb I am going to turn hard to port and make for home before climbing. Can you keep those two running?”*

*“No signs of trouble Skip. I’ll nurse them.”*

*“Let’s take her down to 9 and lay her in.”*

*“Here come the lights Flight.”*

Great silver swords began to appear probing the sky around them. Searchlights seeking to expose their prey. Muzzle flashes on the ground announced the anti aircraft guns were opening up and hundreds of deadly cotton puffs began to appear in the night sky.

*“So far so good Skip. None of those new big blue radar lights and the cones are focused well above us.”*

R2 seemed to crawl through the sky and almost stall over the target. The bursting pods of flak were creeping closer. Then a flurry of sharp sound, metal striking metal, announced

that one had found them.

*"Sounded like a belly hit Sir."*

R2 shrugged, barely shuddered and carried on. Another burst and then another dose of shrapnel hit the starboard side, but the controls remained steady.

*"She's all yours Bombs."*

*"Roger Sir, I can see the target; Navigator activate the master switch, pilot open bomb bay doors. Setting my selector to salvo."*

*"A little to the right ... steady... right again ... left ... steady. Bombs gone! Get us out of here Skip."*

He smiled as R2 responded to his touch on the controls and broke to port and away from danger.

*"Way to go girl."*

The anti-aircraft fire was now zeroing in and more shells were exploding near them, but he was now lengthening the range. Then two more bursts bracketed them from above.

*"Pilot to gunners. You two OK?"*

*"I'm alright, but that was a close one Skip. No Mid Upper damage but I think the rudder and tail fins took some hits."*

*"Kid what's the story back there?"*

*"No turret damage here Sir, but we have a lot of new holes in the fins. They have ceased fire. Way to go Bombs! I don't know what you hit, but there is one hell of a fire burning back there."*

**Harris took a deep breath and sighed. Well done son. They were out of it, but can you get them back home?**

*"Good stuff. Well stay awake you two. Mid, keep an eye on 10 o'clock high and sing out if you see our boys coming up. Karl any fighters should be off chasing the group looking to pick off stragglers. We should be well below them but you never know. Sharp eyes Kid!"*

*"Sparks, see if you can pick up any chatter."*

*“Seems like we picked up a few new holes. How’s she handling Sir?”*

*“She seems steady Cog. The hits don’t seem to affecting her trim. But we need to gain some speed and altitude. About the new holes, I can’t wait to get Cpl. Terry’s count. Let’s try a re-start on number 1 and let’s see if she can help us out.”*

*“Righto Sir.”*

*He saw the port outer fire up, eased the throttle to half speed, felt R2 respond and began to climb gently seeking the safety of the stream and the pathway back to base.”*

*“WOp to Captain, I’m picking up some chatter sir. Sounds like our lads.”*

*“Sparks, I think I’m going to maintain radio silence until we’re closer to rejoining. I don’t want any fighters hearing there is a straggler out here and come looking.”*

*“Mid Upper to Pilot. I think I see them sir. 11 O’clock high.”*

*“I think you’re right. Let’s see if we can catch them Flight. We can at least hang on to their coat-tails and follow them home.”*

He advanced the port outer to full throttle.

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*“Number 1 is overheating again Skipper. You had better shut her down for good. The other two are beginning to heat up too. I recommend throttling back.”*

*“Right Flight, I think our girl’s had about enough. Let’s put her down as soon as we can. Manston is the divert base and given the problems we may have with the hydraulics and the weather, they have the width and length we need for a rough landing.”*

*“Captain to crew. We’re approaching the channel lads and it doesn’t look like we’ll need the dinghy but R2 is a hurting girl. We are back on two engines, some of the hydraulics are out and we may have some damage to the undercarriage. I am going to put her down as soon as I can. We will be landing at Manston and it will be a little dodgy. We are about 10 minutes away. Start securing your stations.”*

*“Sparks, see if you can raise the tower at Manston. Ronnie, identify us, tell them to light it up and let them know we are coming in on two.”*

*“Roger that Skip.”*

*“Well Flight, at least the “Met” report was right about visibility, but the runway will still be wet.”*

He had landed at Manston before but not under these circumstances. The runway was dead ahead.

*“Gear down and locked Skipper. No warning lights.”*

He put R2 in the groove and rode it in. Touchdown was a little heavy and the tires squawked as they met the wet tarmac. The brakes were very soft but they held and he eased back and let his aircraft run out. Roger Squared sat idling on the runway, for a moment the interior was quiet and then.

*“Well done Skipper.” “You too Flight.”*

*“Captain to crew, well done lads, everyone ok back there?”*

*“Way to go Skipper! Great job Cap! Thanks Skip! We made it boys!”*

**Harris added his silent praise to the appreciative responses pouring in from the crew. Then the sound of the grandfather clock striking midnight brought him back to the present.**

A remarkable mission against all odds, by a courageous crew. He picked up his pen and then paused. Another tale of split second decision making, incredible skill and courageous leadership by a remarkable pilot.

He signed, confirming the Distinguished Flying Cross for Musselman.

“Thanks for taking me along lads.”

He closed the folder and as he placed it in his out box he added a final invocation.

“Good show Roger Squared!”

## Tribute to a Century Lancaster

Lancaster Bomber ME-746 AS-R2 (aka Roger Squared) was one very special aircraft. It completed a total of 126 operations (117 Combat, 6 Manna and 3 Exodus). It was one of only 35 of the 7,377 Lancasters built to attain that distinction.

Roger Squared was well and carefully maintained by a dedicated ground crew under the leadership of Corporal Dennis Terry and flown with skill and determination by a number of pilots and air crew including, as noted in the story, Flying Officer H.J. Musselman RCAF, DFC.

In a highly unusual ceremony Bomber Command awarded the aircraft itself, the Distinguished Service Order. In the picture below the maintenance crew and flight crew assembled on the tarmac for a special ceremony following R2's 100<sup>th</sup> mission. Note the large wooden medal (created by Corporal Terry) being held between himself and Flying Officer Musselman. A stirring reminder of that record can be seen in the ten rows of ten bombs painted on fuselage below the pilot's window.



(COPY)

NO. 166 SQUADRON

LANCASTER AIRCRAFT ME.746 - R2

This aircraft has now completed 100 sorties against the enemy in a wide variety of attacks, ranging from targets in enemy occupied territory to the deepest penetrations made into Germany itself.

Throughout these sorties this aircraft has carried many gallant and courageous crews through the fiercest opposition which the enemy has been able to offer, and has never failed to bring them safely home.

The magnificent record established by 'R2' has only been made possible by the devotion to duty of the ground crews. Called upon to service their charge at all hours of the day and night, they have set a standard of serviceability which it will be difficult to equal. The successful completion of 100 sorties by the aircraft bears striking testimony to their skill.

In recognition of the fine achievement of this aircraft, and as a tribute from the aircrew of the Squadron to the ground crew whose efforts have met with such remarkable success, the aircraft is awarded the Distinguished Service Order.

11.3.45.

H. I. Vivian  
Wing Commander, Commanding  
166 Squadron, R.A.F.

Distinguished Service Order presented to ME-746 AS-R2 by Wing Commander Vivian, 166 Squadron

Transcript of DSO Letter

(Copy)

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R.L. Vivian  
Wing Commander, Commanding  
166 Squadron, R.A.F.

## GLOSSARY

BA – Bomb Aimer – seated when operating the front gun turret, but positioned in a laying position when directing the pilot on to the aiming point prior to releasing bomb load.

CONED – when radar controlled master searchlight (often a bluish beam) locked onto an aircraft and other searchlights would also swing onto the aircraft, thus coning it – then flak would be concentrated into the cone.

DFC – Distinguished Flying Cross – medal presented to officers (commissioned and warrant) for conspicuous bravery (immediate) or sustained excellence on active service in operations against the enemy.

EXODUS – flights by Lancaster's to fly liberated POWs back from captivity.

FE – Flight Engineer – seated opposite the pilot on right side of cockpit on folding seat.

GEE – a receiver for a navigation system of synchronized pulses transmitted from the UK – aircraft calculated their position from the phase shift between pulses. The range of GEE was 300-400 miles.

MANNA – flights to provide relief to starving Dutch civilian population with numerous food supply drops. 2,835 Lancaster flights were made.

Mk I – Mark I AVRO Lancaster crewed by seven and fitted with four Rolls-Royce Merlin engines capable of 1,280 hp each, maximum speed of 287mph, maximum ceiling of 22,000 ft, range with a 14,000 lb bomb load 1,000 mi and armament consisting of three powered gun turrets- 2 x .303 in nose, 2 x .303 mid-upper and 4 x .303 in the tail.

MUG – Mid-Upper Gunner – seated in the mid upper turret, which was also in the unheated section of the fuselage.

NAV – Navigator – seated at a table facing to port of the aircraft and directly behind the pilot and flight engineer.

PLT – Pilot – seated on the left hand side of the cockpit. There was no co-pilot.

RG – Rear Gunner – “Tail End Charlie” seated in the rear turret this was in the unheated section of the fuselage and was also the most isolated position. Most rear gunner's once in their turrets did not see another member of the crew until the aircraft returned to base.

SECOND DICKEY - all new pilots were required to fly a familiarization flight with a veteran crew in order to expose them to operational hazards and the German defenses. Since there was no co-pilot there was a fold down seat on the right side of the cockpit which was used by the Flight Engineer and on occasion the “Second Dickey” pilot.

SHAKY DO – a particularly hair raising operation or situation.

W/Op – Wireless Operator – often nick-named “Sparks” for the insignia worn denoting their position, they were seated facing forward and directly beside the navigator.





TOTALS

LANCASTERS BUILT 7,377

LANCASTER SORTIES FLOWN 156,192

LANCASTERS LOST ON OPERATIONS 3,431

LANCASTERS LOST IN ACCIDENTS 246

TOTAL BOMBER COMMAND AIRCREW KILLED IN WORLD WAR II  
55,573

**LEST WE FORGET!**