ORIGINAL.

IN THE HIGH COURT OF AUSTRALIA

TRANS OCEANIC AIRWAYS LIMITED

V.

COMMONWEALTH OF AUSTRALIA

ORIGINAL.

REASONS FOR JUDGMENT

Judgment delivered at Sydney

on Friday, 21st September 1956.

W. M. Houston, Govt. Print., Melb.

C.1978/55

TRANS OCEANIC AIRWAYS LIMITED

v.

COMMONWEALTH OF AUSTRALIA.

JUDGMENT

I direct that judgment be entered for the plaintiff for the sum of £31,000 with costs.

TRANS OCEANIC AIRWAYS LIMITED

v.

COMMONWEALTH OF AUSTRALIA.

JUDGMENT WILLIAMS J.

TRANS OCEANIC AIRWAYS LIMITED

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COMMONWEALTH OF AUSTRALIA.

JUDGMENT. WILLIAMS J.

The plaintiff company sues the Commonwealth of Australia for the damage done to one of its aircraft, a Solent flying boat, in a collision between the aircraft and a dredge which occurred in the Hamilton Reach of the Brisbane River at about 11.45 p.m. on the night of Sunday, 28th October 1951. The aircraft was then on a commercial flight from Sydney to Port Moresby via Brisbane carrying passengers and freight. Fully loaded it weighed 79,000 pounds but it was on this particular occasion only loaded to 71,000 pounds. It was in charge of Captain Mathieson, the flight superintendent of the plaintiff; an experienced pilot in the flying of flying boats including Solents. He had with him First Officer (now Captain) Goddard, another experienced pilot, and Captain Cole also an experienced pilot of flying boats but a pilot who had just been through a conversion course in order to qualify to have his licence endorsed as a pilot for Solents. He had previously only taken off Solents twice at night and that was at Rose Bay. In order to stop at Brisbane it was necessary to land on and take off from the Hamilton Reach of the Brisbane River. That Reach runs approximately in the direction of east and west. The landing and take off were to be from west to east. A flare path had been laid on the northern side of the river from about the western end of the Cold Stores Wharf to the eastern end of the B.H.P. Wharf. The lit portion of the flare path, about 4,700 feet in length, really the flare path proper, comprised a line of five flares roughly 1,000 feet apart parallel with the northern bank of the river and a sixth flare on the

southern side of the river called the "gate flare" approximately at right angles to the fifth flare and usually about 500 feet from it. The object of the flares was to indicate the area of the river that had been swept for the landing or the take off, that is searched by the crews of two control launches for floating debris and the debris picked up. These sweepings took place before an aircraft landed and during the period between its landing and subsequent take off. In line with each end of the lit portion were unlighted areas that had also been swept in this way. On the night of the 28th a dredge was anchored beyond the lit portion of the flare path to the north-west of the No.4 buoy on the southern bank to which the Solent was to be moored. Its bow was facing east and its stern west. It was 30 feet in beam and 200 feet in length. It was firmly anchored in a fixed position by six anchors and it had red and green passing lights one below the other hung on a gaff on its port side 46 and 40 feet above the water respectively and a white light near the water on its stern also on the port side. It was engaged during week days in dredging the leads in the river and was approaching the eastern end of the lit portion of the flare path at the rate of 130 feet a day. On the night of the 28th it was roughly 800 feet away from this end. Mathieson landed the aircraft himself and taxied it to its moorings at No.4 buoy. The buoy was in a somewhat congested area, a number of Army boats amongst other craft being moored nearby. At that time the tide was just about at the flood and slack. At 11.30 p.m. when the aircraft left the buoy to taxi to the west end of the flare path in order to take off the tide was ebbing strongly. There was a two to three knot crosswind with a component of headwind. The visibility was good. Mathieson was in control at the commencement of the taxi-ing but on the way to the No.1 flare called upon Cole to assume control and take the aircraft off. Cole moved into the pilot's seat and Mathieson moved into that of the first officer. But the aircraft had dual control and could be

flown from either seat. The throttles of the four engines were between the two seats. It also had two systems of communication, the one tuned to the ground so as to receive and send messages from and to the control tower which was situated at Eagle Farm and the other to communicate with the engineer. At all times Mathieson had the earphones of the former system on his head while Cole put on the earphones of the latter when he assumed control of the take off. The flare path was in charge of a control launch which on the night of the 28th had on board Coxswain Pick, Boatman Maddox and Communications Officer Nagle. In the auxiliary launch was Coxswain Simpson. In the Control Office at Eagle Farm was Traffic Controller Jones. The Hamilton Reach was an area where the Air Traffic Control Service was in operation and Regulation 134 of the Air Navigation Regulations 1947-1950 provided that the pilot in command of an aircraft operating in such areas should comply with air traffic control instructions. The method of control was for the control launch to send a message to the control tower for communication to the aircraft and for the officer in the tower to relay the message to the aircraft. At 9.48 p.m., when the Solent was near Southport, on its way to the Hamilton Reach, Mathieson received a message that there was a dredge anchored 100 yards north-west of the moorings and that the control launch would lead him there. At 9.51 he received a further message from the tower that there was a ship in the flare path and this caused him to make a circuit before commencing to land. He landed at 9.59 and as he landed asked the tower whether the aircraft was intended to pass between the north bank and the dredge and was told that this was correct. As a flying boat lands it first of all planes on the water, on what is called the step, and then, as it loses speed, it settles into the water as a hull. As it taxies to the mooring the engines are tested, the two inboard motors are shut down, and the taxi-ing is completed with the outboard motors. As the aircraft lands the control launch is situated near the No.1 flare. It chases

the aircraft along the flare path and usually overtakes it before it reaches the end of the flare path. This occurred on the present occasion and the control launch led the Solent from the No. 5 flare around the east of the dredge to the No.4 buoy flashing an Aldis lamp on the dredge so that the officers on the aircraft could see it. The aircraft having been moored, the three officers went ashore to the flying boat base on the northern shore of the river and later returned to the aircraft. On each occasion they passed close to the dredge but they may not have been looking out for it. When they returned to the aircraft at about 11.30 p.m. preparations were made to take off. Mathieson asked for a clearance to slip his moorings. He received a message that when he slipped his moorings he was to move ahead towards the gate flare for a right-hand turn into the flare path and to have regard to the dredge and strong ebb tide and he was informed that the control launch would be by the gate flare. In his evidence Mathieson denied that the words "gate flare" were used in this message. He said he was told to taxi ahead to the flare in front of him and then out on to the flare path. He admitted that he saw a flare towards the south bank to the westward of him but throughout his evidence maintained that the message he received did not refer to the gate flare but only to a flare and that when he was taxi-ing from the moorings preparatory to the take off he did not recognise this flare as the gate flare but took it to be a taxi flare to guide him out of the moorings. Of this evidence I shall simply say that I am not prepared to accept it. Mathieson may possibly have overlooked the word "gate" in the message but I cannot believe that he failed to recognise the flare in question as the gate flare when he saw it. His evidence that he thought it was some strange new flare placed in the river to help him taxi off is not acceptable. The layout of a flare path was quite stereotyped and well-known to him. It consisted of a line of flares on the one side of the lit area and a single flare approximately opposite to the last

of these flares on the other side to indicate the width of the swept area. Mathieson had landed and taken off at night on many occasions. He was a navigator as well as a pilot, and he was very familiar with this layout. Why Mathieson should have been reluctant to admit that he knew that it was the gate flare I am not sure. He may have thought that such an admission would weaken the plaintiff's case. Whatever his reason may have been I have felt compelled to scrutinise the rest of his evidence with particular care. If the plaintiff's case rested on the acceptance of this evidence, it would fail. But, for reasons which I will give, it does not appear to me that the plaintiff's case really depends at all upon whether Mathieson realised that the flare near the moorings was the gate flare or not.

After it had slipped its moorings the Solent taxied to the start of the take off. It made a turn to the right and was then in the lit area about in line with the No.1 flare. The control launch was slightly to the north-west of this flare off the flare path and the auxiliary launch was slightly to the north-east of the No.5 flare. Before the aircraft was cleared to take off it was Simpson's duty to flash a green light to the control launch to indicate that all was clear at his end. The control launch was then free to clear the aircraft for the take off. This procedure was followed on the night of the 28th. Simpson flashed the green light and the control launch cleared the Solent for the take off. It commenced to take off. It had by this time drifted with the tide, I think, a short distance beyond the No.1 flare. The take off is in three stages: (1) the emergence of the hull from the water on to the step; (2) the planing along on the step; and (3) the aircraft becoming airborne (usually described as becoming unstuck). After it is airborne the aircraft flies straight for a short distance just above the water to increase its speed until it is safe to commence to climb. An estimate of the safe rate of climb in the case of the Solent would seem to be

1 in 40. Until the flying boat attains a certain speed, usually attained when it is on the step, it cannot be steered by the rudder. It must be steered by the propellors by a differential use of the power of the motors. In the case of the Solent the revolution of the engines is anti-clockwise and this gives the aircraft a tendency to veer to starboard, called torque. This tendency is increased if there is a side wind blowing in that direction as there was in the present case. To check this tendency the throttle of the No.1 engine is retarded behind the throttles of the other three engines. If the throttle of the No.1 engine is advanced too rapidly the aircraft may then veer to starboard and the throttle may have to be retarded again. In the commencement of the take off in the present case Cole appears to have advanced this throttle too rapidly due, it may be, to his lack of complete familiarity with the behaviour of the particular aircraft and to have had to retard this throttle twice and this resulted in a somewhat prolonged take off. Generally flying boats taking off from the Hamilton Reach become airborne slightly before or opposite the No.4 flare. The Solent is a heavier boat than many other flying boats but she was lightly loaded on this occasion and I am satisfied that if the take off had been done by a pilot as thoroughly familiar with the Solent as Mathieson the aircraft would have become airborne by the No.4 flare. But it was only just on the point of becoming unstuck, I believe, when it reached the No.5 flare. I also believe that it was slightly further to the south than usual in the flare path. I am satisfied however that if the take off had been completed and no attempt had been made to abandon it, the aircraft would have passed through the flare gate well in between the No.5 flare and the gate flare. But shortly before the Solent reached the gate Cole and Mathieson, and Goddard who was standing just behind them, all saw lights looming directly ahead of them which they suddenly recognized as the lights of the dredge, and an attempt was then made by both Cole and Mathieson simultaneously to abandon the take off by shutting down all four engines. But it was too late to stop

the aircraft before it reached the dredge and an attempt by Cole, by manipulating the engines and the ailerons, to tilt the aircraft and lift the starboard wing over the height of the dredge also failed. The starboard wing of the aircraft hit the davits of the dredge about 16 feet above the water, breaking the end portion of this wing right off. Fortunately there were no casualties amongst the passengers or the crew.

This brings me to the crucial part of the case. The flares were electric flares on small floats anchored to the bottom of the river first by 60 feet of rope attached to the float and then by 6 feet of chain joining the rope to a kedge-anchor weighing about 8 pounds. The river was about 22 feet deep on its northern bank where the five flares were anchored and about 16 feet on its southern bank where the gate flare was anchored. These light anchors must have dragged at times because Pick said they had to keep a watch on the flares and, if they moved, to shift them back into position. But, quite apart from the risk of the anchors dragging, the length of the ropes and chains must have allowed the flares to move considerably due to wind and tide. Immediately after the accident occurred Mr. Fry, the then Superintendent of Air Navigation in Queensland, gave directions that the flares were not to be moved and from their position next morning caused a plan to be prepared which is Exhibit 2 in the case. But the flares need not necessarily have been in exactly the same position on the following morning as they were at the time of the accident. Normally the movement of the flares to the extent allowed by the loose anchorage would not have been very important. Wherever the No.5 flare and the gate flare could have swung to, an aircraft that passed between them, even if it only became airborne at the gate itself, should have been safe from any obstacle on the water. But the presence of the dredge to the east of the flare path on the night of the 28th October made the position of the gate flare of vital importance to the safety of the flare path in the present case. The pilot of an

aircraft using a controlled flare path was undoubtedly in my opinion entitled to assume, in the absence of a clear warning to the contrary, that the aircraft would be safe if he flew it through the flare gate. Mr. Shand, I think, very fairly admitted this and indeed I do not think that he could have done otherwise because Captain Sims, a very experienced pilot of flying boats, now retired and employed by the Department of Civil Aviation as an Airways Surveyor, said that, unless there was something to indicate to the contrary, it would be perfectly proper for a pilot to fix the mid point between the No.5 flare and the gate flare as his point of exit and steer for that. Mr. Shand admitted that the position of the dredge on the night of 28th October made the flare path unsafe and that, without a warning, it would have been negligence on the part of the civil aviation authorities to have cleared an aircraft for take off. But he submitted that the warning was, in this particular case, what he described as an integral part of the safety of the flare path, and asked me to find that Mathieson from the evidence of the messages he received from the control tower, of his own inquiry on landing whether he was to pass to the north of the dredge on his way to the moorings and of his visual observation of the dredge must have known that it was situated within the limits of two parallel lines drawn along and beyond the flare path, or alternatively that Mathieson, who was an experienced pilot and navigator, should by the exercise of ordinary aeronautical skill and prudence have realised the danger of the dredge being there. This is, in effect, a submission that Mathieson knew or that alternatively the civil aviation authorities gave Mathieson what should have been an adequate warning that the flare path they had provided was a hazardous flare path which could only be safely used for the take off provided he took the necessary steps to avoid the dredge either by steering to the north of it or by flying over it if he could gain sufficient height before he reached it. It is to be noted that neither the control tower nor the control

launch gave Mathieson any precise information as to the exact location of the dredge in relation to the take off or as to its dimensions and height, the manner in which it was anchored, or the number, nature and position of its lights. The messages he received related only to the dredge as a hazard to the aircraft when taxi-ing to and from the No.4 buoy and to the precautions that should be taken to avoid it at these particular times. This was only natural because at no stage did Pick, from whom the messages originated, consider the dredge a hazard to the landing or take off of the aircraft. No instructions whatever were given to Mathieson that it would be dangerous to take off except in some special manner. If an adequate warning of the danger from the dredge could have been sufficient to make the flare path safe, the messages Mathieson received were in my opinion quite inadequate to qualify as such.

It is the duty of the Court, where the plaintiff alleges that the defendant was negligent and that this negligence was the effective cause of the accident, and the defendant charges the plaintiff with contributory negligence, to examine the alleged negligence of the defendant in the first place.

The Air Traffic Control service was under Division 2 of Part IX of the Air Navigation Regulations in control of the take off and the civil aviation authorities were bound, in my opinion, to provide a flare path that was safe if the pilot of the aircraft took off in the usual way by flying straight through the gate or, if the flare path was not safe if used in this way, they were bound to give a clear and explicit warning as to the special precautions that should be taken so that it could be safely used. In the present case,the flares could have been laid so that the pilot, by flying straight through the gate, would have been bound to pass to the north of the dredge. As the flares were not so laid, the authorities were bound to warn the pilot that the dredge was there giving particulars of its location, dimensions and lights and that it would only be safe to use the flare path if the take off could be so managed that the aircraft would pass to the north of it. The authorities did neither.

They relied on the pilot finding out for himself where the dredge was and taking his own precautions to avoid it. They were in control of the take off. They cleared the aircraft for the usual take off although it was in the special circumstances unsafe for the aircraft to be taken off in this way. I am satisfied that the authorities failed, in the circumstances, to take due care for the safety of the aircraft, that the defendant was through them guilty of negligence and that this negligence was the effective cause of the accident.

It remains to examine the question of contributory negligence because if the negligence of the plaintiff, in this case the negligence of its servant Mathieson, materially contributed to the accident, then the plaintiff cannot recover. The tort if any was committed in Queensland and the case has been heard in New South Wales. Under certain circumstances the question could arise whether the applicable law was that of Queensland or New South Wales, but it does not arise in the present case because on 28th October 1951 the law of Queensland and New South Wales was the same, that is in both States the law of negligence and contributory negligence was governed by the common law. Accordingly, the onus is on the defendant to prove contributory negligence but if it is proved it is a complete defence to the action. The definitions of contributory negligence are legion. But it will be sufficient to refer to the passage so often cited in the speech of Lord Shaw in Anglo-Newfoundland Development Co. Ltd. v. The Pacific Steam Navigation Co. 1924 A.C.406 at p.419-420:

> " The principle does not apply to shipping law alone, but to all the law of contributory negligence, from Davies v. Mann 10M. & W.546 downwards. And I take the principle to be that, although there might be - which for the purpose of this point I am reckoning that there was - fault in being in a position which makes an accident possible yet, if the position is recognized by the other prior to operations which result in an accident occurring, then the author of that accident is the party who, recognizing the position of the other, fails negligently to avoid an accident which, with reasonable conduct on his part, could have been avoided. Unless that principle be applied it would be always open to a person negligently and recklessly approaching, and failing to avoid a known danger, to plead that the reckless encountering of danger was contributed to by the fact that there was a danger to be encountered. "

The onus is, as I have said, on the defendant, against whom negligence has been proved, to prove contributory negligence. The basis of the charge is that Mathieson knew or ought to have known that the flare path was unsafe because the dredge was in the line of a straight take off and the accident occurred because Mathieson should have ascertained its exact position before taking off himself and did not do so, or alternatively, if Cole was to make the take off, that he should have imparted to Cole the knowledge he had acquired of the relative position of the dredge to the flare path, that he should have made sure that Cole realised the dangerous nature of the take off, that he should have instructed Cole that he must decide for himself whether or not it was safe in these circumstances to take off at all, and that, if he decided to do so, to be careful to use the full length of the flare path and steer to the north of the dredge. It was also submitted that Mathieson, when the take off was delayed by the aircraft swinging to starboard, should have immediately directed Cole to abandon the take off. Alternatively it was submitted that Mathieson with his knowledge that the dredge was somewhere to the east of the flare path should not have handed over the control of the take off to a pilot who had never taken a Solent off from the Hamilton Reach before, who had only taken a Solent off twice at night anywhere and who, not knowing that he was to be asked to do the take off until after the aircraft had left the moorings, had no real opportunity of ascertaining the position of the dredge.

These are submissions made from various angles that Mathieson was guilty of contributory negligence because, in the light of what he knew or ought to have known, he did not take reasonable care for the safety of the aircraft and its passengers and crew. If I was satisfied that Mathieson knew or ought to have known that the dredge was in the way of a pilot making an ordinary use of the flare path I would be prepared to find contributory negligence. In that case the only conduct on his part reasonably consistent with the safety of the

aircraft would probably have been to refuse to take off at night. But the evidence is quite insufficient to justify such a finding. It would certainly not be justified by Mathieson's reluctance to admit that he knew the flare near the moorings was the gate flare. This flare could be in close proximity to the dredge without the dredge being a hazard to the take off. Indeed the knowledge that it was the gate flare might easily have lead Mathieson to believe, if he had thought about it at all, that the warnings that were given about the dredge were intended to be confined to the occasions when the aircraft was taxi-ing in close proximity to it. Mathieson was cleared to take off without any specific warning relative to the take off. He must have known that the dredge was somewhere in the river to the east of the flare path, but that knowledge falls far short of actual knowledge that it was in the track of the take off and it was not knowledge from which any skilled pilot ought reasonably to have assumed that the dredge would be a hazard to the take off against which if he took off at all he must take special precautions.

It was submitted by Mr. Shand that Mathieson must have known that the dredge was in the path of the take off because he must have seen it there because on landing he asked if he was to pass to the north of it in order to reach the moorings. I am unable to draw this inference. I accept Mathieson's evidence that in order to reach the moorings he followed straight up the river and did not have to deviate to avoid the dredge. At that time the tide was slack and the gate flare was probably to the north of where it was at the take off by which time it had probably been carried towards the southern shore of the river by the ebb tide. I am not satisfied that at the time of the landing the dredge was within the prolongation of the flare path. It could have been and probably was to the south of it. In Exhibit 2 the gate flare is shown over 600 feet to the south of the No.5 flare. But the evidence of the crew of the launches is that their practice was to lay the gate flare about 500 feet to the south of the

No.5 flare and 300 feet to the east of it. This gives some indication of the extent to which the flares could move about on their loose moorings and of the extent to which the direction of the path through the flare gate could change in consequence. In the absence of a special warning relating to the take off Mathieson was, in my opinion, entitled to believe that the ordinary use of the flare path would be safe. No such warning was given. The crew of the control launch said that they could see the lights of the dredge from where the launch was near the No.1 flare at the commencement of the take off. I accept this evidence but it does not mean that these lights would be apparent to persons who were not alerted to look for them. They could easily form part of the general pattern of the lights ahead of the aircraft on boats anchored near the southern bank of the river and on buildings and other erections on the shore beyond. If the pilots had no reason to believe that the dredge was a hazard, there was no reason why they should be on the alert to look for its lights. This duty would only have arisen if their attention had been drawn to the necessity of taking care to avoid the dredge and to these lights as showing its position. Mathieson would then have had to decide whether to abandon the take off for the night or to risk being able to take avoiding action. It may also be that, if the Solent had become airborne sooner, as it might have in the hands of a pilot more used to its performance, it would have reached sufficient height in time to fly over the mast of the dredge. But to persist with the take off after it had been slightly prolonged would be quite justifiable, unless a special warning had been given that the take off should be abandoned unless the aircraft had become airborne by a certain point because, unless the aircraft reached a certain height in time, it was likely to hit the dredge. The only criticism that possibly may be levelled against Mathieson is that, having seen the dredge and its vicinity to the gate, he might well have considered it advisable to take off the aircraft himself. But he could not be said to have failed

to take due care for its safety by allowing Cole to do so, especially in a machine with dual control. If Cole was a little slow in becoming airborne because he was not so experienced in keeping the aircraft straight by the differential use of the engines as Mathieson would have been before the rudder could be used, any prolongation of the take off that occurred could not be evidence of want of due care for the safety of the aircraft when Mathieson had no reason to believe that its safety depended on its being able to fly over the dredge. The accident was caused, in my opinion, and I so find, by the negligent laying and control of the flare path in the special circumstances of the case. This is not to attribute any blame to the crews of the two launches. They were not instructed to take any special precautions by any higher authority. They were simply instructed to lay the usual flare path and that is what they reported to the control tower had been done. It is unfortunate that it did not occur to Pick that he must be careful to place the No.5 flare and the gate flare in such relative positions that an aircraft which flew between them would fly to the north of the dredge. It is also unfortunate that it did not occur to him to call Mathieson's attention to the lights of the dredge before clearing the aircraft for the take off. But apparently neither of these points did occur to him and there was really no obligation on him to go beyond his instructions. He led the aircraft safely to the No.1 flare in order to take off. He got the green light from Simpson and he performed all the duties he would have performed in an ordinary take off. Apart from Mr. Fry, who only assumed office a fortnight before the accident and could not be blamed for not having acquired personal knowledge of the danger of the dredge, no superior officer of the department, not even the officer in control of operations on the night in question, was called by the defendant. There must have been some person in the department who knew of the presence of the dredge and its advance upon the flare path day by day in the period between September 13th when it

commenced operations and the date of the accident, but no special precautions appear to have been taken at any time to safeguard aircraft against this unusual and oncoming hazard. In these circumstances it would be unreasonable to blame Mathieson for not realising the danger when all that he was ever told was in effect to take care when taxi-ing close to the dredge for the purpose of picking up or slipping his moorings. Having left those hazards behind he was entitled to assume, until he was told to the contrary, that only the usual perils of aeronautical navigation lay ahead.

The parties have agreed that, in the event of my finding for the plaintiff, the amount of damages to be awarded should be £31,000, and in my opinion there should be judgment for the plaintiff for this amount but I do not feel that I should conclude my reasons without making a few remarks about some of the evidence given by Mr. Fry and Captain Sims. According to Fry, the dredge was not a hazard although it was in the line of the flare path because it was a safe distance beyond the gate. He did not think the dredge was dangerously close in the case of a pilot who believed that he was free to take his aircraft out at any point between the No.5 flare and the gate flare. He did not think that it would have been dangerously close even if it had only been 400 feet beyond the gate because the pilot could have taken the aircraft round the dredge or even above it. No doubt it would have been possible for the Solent to have passed by or even over the dredge in safety. But for a high officer of the Department to swear that he considered that it would be safe for air control to clear an aircraft for take off in these circumstances without ensuring that the pilot in command knew of the hazard is disturbing. He considered that it would be safe for air control to tell the pilot that the obstruction was "there" (presumably that would mean somewhere ahead of the flare gate) and to "observe it" and that this would be an adequate warning to the pilot. He said that it would be sufficient to tell him

that the obstruction was within some distance from some object such as a wharf on the shore. The pilot would then have the final say whether to take off or not. He could go outside the area marked out for him by the department and decide for himself where to take off. He could even decide to have the flare path moved or have a further flare path swept. I find this evidence quite unacceptable. With some doubt I allowed Mr. Shand to ask Sims as an experienced pilot what precautions if any in his opinion Mathieson should have taken before taking off as a matter of aeronautical skill and prudence having regard to the knowledge available to him from the message he received about the dredge before landing and what he was shown after landing whilst taxi-ing from the No.5 flare to his moorings and Sims expressed the opinion that Mathieson should have ensured that there was adequate clearance between the dredge and the northern flare path. If this means, as it would appear, that Mathieson should have ensured that the dredge was not in the line of the flare path he was instructed to use by the department this evidence is equally unacceptable. The pilot in command of an aircraft is, of course, responsible for the operation and safety of his aircraft. This duty is imposed upon him by the common law and by Regulations 124 and 219 of the Air Navigation Regulations. He would, no doubt, be justified in disobeying an instruction from the authorities where he had reason to believe that, if he did not do so, the safety of his aircraft would be endangered. He could refuse to take off at all in such circumstances. But the provisions of Division 2 of Part 11 of the regulations as they existed in 1951 and in particular Regulation 147 (5) clearly implied that a pilot was entitled to assume that if he was cleared for take off along a flare path he might safely do so in the usual manner subject to obeying any special instructions to the contrary that he might receive at the time. He could not be under an obligation to ascertain for himself whether some obstruction he might have

reason to believe was somewhere ahead of him was, in fact, in the line of flight along the path he was invited, indeed instructed, to use. The purpose of preparing a flare path must be, I should think, to provide a safe take off for the aircraft. Probably Fry made the rash statements to which I have referred under the strain of cross-examination. Fortunately his conduct subsequent to the accident quite belies his words because immediately after the accident he gave instructions that the Hamilton Reach should no longer be used for night operations and that the Lytton Reach must be used instead. The continuous advance of the dredge onto the flare path in the Hamilton Reach was a factor in this decision. But Fry was also of opinion that 7,300 feet should be swept for flying boats to land and take off from of which 6,000 feet should be lit and that at the approach to the flare path on either end there should be no obstacles that could be struck in the area by an aircraft taking off and climbing at the rate of 1 in 35.

For these reasons I give judgment for the plaintiff for the sum of £31,000 with costs.