Page 2017, item 12 "Dark mutterings by men leaving an action station alarm", yet he is the first to criticise when action stations were not sounded. Confuses me!

I do agree that the action inquiry and subsequent Australian Official History was a complete mess of facts and detail. A modern day description would be "it was a complete stuff up".

I have a signed statement from the uncle of a Petty Officer with whom he walked back to the "Sydney" the night before she sailed on her last trip which states "God help us if we run into any trouble out there, look at that. That was 'A' turret guns at an angle, those guns don't bear" or words to that effect.

As more evidence is coming to light as a result of this inquiry, especially with the KDLS Electronics System, it should now be easy to locate and inspect both the "Sydney" and "Kormoran" and possibly put most at least of this mystery, to rest and then finally chart both ships as official war graves.

*****

Submission to the Joint Standing Committee on Foreign Affairs, Defence and Trade

Defence Sub-Committee

Inquiry into the circumstances of the sinking of HMAS Sydney

Feasibility of the search for HMAS Sydney and HSK Kormoran:
Oceanographic and Cognitive Issues

Kim Kirsner & John Dunn

1 Kim Kirsner. PhD, FAASS, Professor, Department of Psychology, University of Western Australia, Honorary Associate, Western Australian Museum. Chair, Archival sub-committee, HMAS Sydney Foundation Trust (Contact Tel. 08-9380-3232, Tel 08-9389-9112, Fax 08-9380-1006, email: kkm@psy.uwa.edu.au)
2 John Dunn, PhD, Department of Behavioural Science, University of Western Australia, 9346-2251, email: jdunn@uwa.uwa.edu.au

Address by EV Ruting
Perth - 16 April, 1998
Feasibility of the search for HMAS Sydney and HSK Kormoran: Oceanographic and Cognitive Issues

1 Overview

The following analysis is concerned with one part of the third of the six terms of reference concerning the feasibility of a search for the wrecks of HMAS Sydney and HSK Kormoran. The analysis is predicated on the assumption that answers to questions about the locations of the wrecks must draw on and account for both the oceanographic data and the archival data. Our analysis therefore unfolds in two stages. Concerning each of these forms of evidence, attempts to hindcast the positions of the wrecks of HSK Kormoran and HMAS Sydney have been limited by the quality of meteorological and oceanographic data. The most vexing problem stems from the fact that current data in most general purpose atlases reflects wind driven current as well as oceanic drift, a problem that may have yielded double counting for wind driven current in all but two or three analyses. The second problem stems from intrinsic limitations in the data that were available for reconstruction of wind for the critical period in 1941. Reconstruction of the wind patterns depended on data from shore stations, and there are reasons to suspect that the actual wind data for the period was nearer to the historical known patterns, with lower velocities and a higher proportion of winds from the south than the south-east. Despite the presence of the problems outlined above, the 1991 hinds of McCarthy and Kirsner (1991) produced considerable agreement from the oceanographic and search and rescue groups as to the general location of the point of origin of the debris. As shown in Figure 1, the solutions produced by Sam Hughes, a search and rescue expert from the Australian Maritime Safety Authority, and Ray Steedman, an oceanographer, intersect along longitude 111°E between 20°S and 27°S.

The second part of our paper comprises summary information from a systematic analysis and reconstruction of the survivor's reports about the episode. This analysis involved application of a cognitive model of the way in which information is transmitted and transferred in cognitive and social systems. It was our assumption in preparing this model that an accurate account must involve all of the archival data, and that a selective approach cannot provide a secure solution. This analysis identified a probable point of contact between the vessels, the probable position for the battle and for the point where HSK Kormoran survivors disembarked, and the approximate position of HMAS Sydney. The products of the hindcast analyses and the cognitive reconstruction of the archival data complement each other. The size of the area identified for HSK Kormoran is similar to the areas that guided the searches for Titanic and Bismarck. A search for the wrecks is feasible.

2 Oceanographic analysis

2.1 Hindcasting: Solutions

The oceanographic analysis has unfolded in two stages. The first stage involved a series of reconstructions of the 'most probable' point of origin of the drift material. In this report, consideration will be restricted to three solutions by Hughes (1991), Steedman and McCormack (1991) and Fugro (1991). The first of these was published in 1991 as a result of independent work by a group of experts at the Australian Maritime Safety Authority Search and Rescue Centre in Canberra (Hughes, 1991). Hughes' analysis involved the application of routine search and rescue procedures to 'hindcast' tracks as distinct from 'fore-casting', and they concluded that 'the most likely point of origin is within a fifty mile radius circle of probability on a datum of 26°30'S 111°30'E'. Hughes' analysis was based on the wind velocity values provided by Courtney (1991) and Southern (1991) and included a separate calculation for wind-driven current. In this report and as derived from the general purpose atlases Hughes also completed a separate reconstruction of von Malanperts' diary describing his voyage from HSK Kormoran to the coast of Comoros, the results of which completed the hindcast analyses. Figure 1 includes the point of origin identified by them, and a 50 mile radius around that point.

The second analysis was prepared independently by Steedman and McCormack (1991). Unlike Hughes (1991), they estimated wind from more recent sources that involved oceanic as distinct from shore-based measurement. They identified years that were in other respects similar to 1941, and used estimated wind patterns for the critical area for those years. They also used more conservative leeway estimates than Hughes (1991) for some objects. Steedman and McCormack (1991) concluded that 'the most plausible interpretation of the drift simulation results is that the most likely source of the debris was at the position of the last sighting of HMAS Sydney (approximately latitude 26°40'S and longitude 110°40'E, depth 4000') to within a 65km'. Figure 1 includes the point of origin identified by them, and a 65 km radius around that point. It should be noted that the error circles derived by Hughes (1991) and Steedman and McCormack (1991) intersect around longitude 111°E between 26°S and 27°S.

Fugro Survey completed an additional analysis and submitted that to the Parliamentary Inquiry. This report is included in Submission #60, Volume 4. The analysis is similar to that prepared by Hughes (1991) except that Fugro included a correction to remove double counting for wind-driven current. This correction, first suggested by Steedman (personal communication), involved estimating the difference between the historical wind patterns and the reconstructed wind patterns, and treating this as an estimate of wind-driven current. Thus, as the reconstructed winds were some 8 knots stronger than the historical winds, the estimate for wind-driven current used this figure rather than absolute wind velocity. The Fugro analysis yielded a similar solution to that provided by Hughes (1991). As shown in Figure 1, the estimated point of origin is 20°18'S 111°41'E.

In summary, while these studies involved different techniques and differed considerably in regard to longitude, they were very similar in regard to latitude. At 26°18'S to 26°40'S, 'The Hughes and Steedman and McCormack (1991) studies also placed similar limits on the most southerly possible value, at about 27°20'S.

2.2 Hindcasting: Problems

The group of papers summarised above exposed three measurement problems.

Current: Velocity. The general purpose atlases take a broad brush to the problem and, typically, show direction with an arrow, and velocity by the shape of the shaft and an accompanying note which indicates that the current sets in the given direction for some percentage of the time. The Routing Chart Indian Ocean (1975) follows this approach for the critical area. The arrow indicates that current sets at approximately 340° at > 0.5 knots for 33% or 66% of the time. Some investigators have ignored the caveat: others have accepted the caveat, and assumed that net current applies for between 33% and 66% of the time, yielding a lower corrected value. Pearce (1991), a marine scientist working with CSIRO, published two sets of basic data from the KNMI
von Malapert kept a detailed diary about the movement of his lifeboat for the period from 24/09/1911 to 25/11/1911 when it reached the coast. Hughes (1991) used the information recorded in von Malapert's diary to reconstruct his voyage, and his analysis confirms the general location of the battle. Hughes actually offered two solutions: at 20°S 111°E exactly, and 20°S 110°00'E for the point of origin of the voyage described in von Malapert's diary. The Fugro Report includes a similar analysis of von Malapert's diary, placing the point of origin of his voyage at approximately 20°26'S 110°33'E.

3 Reports from survivors of HSK Kormoran

3.1 Decision-making in multi-disciplinary environments

Decisions about the location of the wrecks depend on the application of appropriate technologies. Several technologies are relevant to the problem, and a critical argument advanced here is that serious accounts must explain the complete set of data, not a subset selected to prove a specific point. Put in other words, an account that explains a larger proportion of the observations and reports must be preferred to accounts that use only one source or type of data, and dismiss all other data sources on some general principal. Thus, accounts which dismiss the reports of the Kormoran survivors as 'raft of lies' must be treated with caution unless they can justify that position. Similarly, accounts which treat the Kormoran survivor's reports as a 'raft of lies' while using one or two carefully selected reports to support a specific point of view must justify their selection on grounds other than the fact that the selected evidence fits their preferred story.

3.2 Cognitive reconstruction

The second technique used in this paper involved the application of a cognitive modelling technique developed by the authors to reconstruct original information from the degraded data so typical of eyewitness testimony, even under optimal conditions. The technique is not described in full in this paper. Rather, some of the products of that analysis are used to first, identify the position of initial contact between the vessels; second, identify the position of disembarkation for the Kormoran survivors and, third, highlight the consistency among the survivor's accounts despite the fact that they include reference to three different phases of the engagement.

There is no single model or procedure that can be adopted for the reconstruction of archival data involving eyewitness statements. The approach described here was guided by a range of techniques and models that have been applied to a variety of cognitive problems, including for example eyewitness testimony. The complete cognitive analysis included development of a domain-independent procedure for classifying inconsistent eyewitness reports, a procedure for identifying and exploiting temporal and contextual information about each report, and qualitative and quantitative analyses of the error patterns. The full analysis will be published separately.

In summary, one approach to the statements provided by the Kormoran survivors is to dismiss them as a 'raft of lies'. Another approach is to dismiss the reports as a 'raft of lies, except for those that fit my story'. A third approach, and the one adopted here, is to assume that the statements attributed to the survivors include both accurate and erroneous entries, and true and false statements, and to adhere to the premise that an effective analysis must explain the entire body of data.
The data set that we are concerned with consists of all reports attributed to survivors that include information about absolute or relative position. For the present purpose therefore we are not concerned with reports that follow collation by RN or RAN agencies, or with reports prepared by historians such as Gill (1957), Rose (1957), Montgomery (1981), Winter (1984), Rohrer and Hummelchen (1992) or Frame (1993). These accounts and other historical material by and will be dealt with separately. Overall, our research identified 41 distinct reports from 14 named survivors plus a further seven that are loosely attributed to ‘survivors’. The first step in the analysis was to classify the data according to a reference point or event in the archival record. Using this approach, most of the reports could be assigned to one of three categories. The first category comprises statements that include any reference to 28°S or 111°E. The second category includes statements that included any reference to a distance from the coast or a coastal feature. The third category is defined by statements that involve reference to the last position of HMAS Sydney. This category comprises reports by Detmers and reports that can be linked to Detmers.

3.3 Category I: Statements that included any reference to 26°S or 111°E

Basic data. Twenty-four reports fall into this category. These reports involve eight named survivors (22 reports) and a further four reports that are attributed to an un-named wireless telegraphy operator or to a survivor. It is possible that this collection includes some multiple reports based on a single interview or interrogation. Eleven of the reports date from the Search and Rescue phase of the operation, six from the FOW interrogations, and a further seven from diaries and other accounts published after 1941.

No fewer than 19 of the reports in this set actually specify both 26°S and 111°E and, more significantly perhaps, eight of them emanate from crew who worked in Kormoran’s communications branch. Three additional reports emanated from Bunjes, a prize-captain who may have been on the bridge prior to and during the battle. Many of these reports specifically refer to either the initial contact between the vessels, or to the signal that was picked up by Uco and Geraldon at 1600/19/11/1941, and interpreted by one source as being 29°S 111°15'E. This signal is usually attributed to HSK Kormoran.

This, then, is the basic data. The only way to move the initial point of contact between the vessels attributed to a known position, is to define by, say, 25°30'S-29°S and 110°30'E-110°30'E is to assume that all of these reports involved deliberate misrepresentation.

The set of 24 reports also includes five that mention either 26°S or 111°E but not both. We have assumed that these involve specified types of memory or transcription errors. For example, one of the errors involved 26°S 111°E but this error was made by a named survivor who, according to our analysis, subsequently used 29°S 111°E on several other occasions. Each of the five ‘errors’ involved a different departure from the basic datum, one of which involved information overheard by a guard.

Converging evidence. Perhaps the most intriguing clue to the precise position of the initial contact between the vessels comes from Bunjes. Bunjes stated that contact occurred approximately 150 nm SW of NW Cape. Now NW Cape is of course hundreds of miles to the north and out of the game. But one of the most common errors in human memory involves mis-attribution, which in a given name, concept or interpretation is replaced by an alternative that is more familiar to the eyewitness or observer. In this case the most obvious or inaccurately people forget details and make transcription errors even in under the best of conditions.

4 The limitation to 30' either side of 26°S and 111°E reflects our assumption that the reported values were intended to be accurate to the nearest degree, not the nearest minute

The substitution error attributed to Bunjes could have arisen for any one of several reasons. One possibility is that ‘NW Cape’ was not mentioned on the critical map at all. A second possibility is that ‘NW Cape’ was more prominently marked on the map than Cape Cuvier. A third and more prosaic possibility is that Bunjes misread the name. All of these errors are common in memory research but, more significantly perhaps, the evidence comes from an experienced sailor whose archival reports necessitated the use of a mask to conceal sensitive and presumably personal material in the archives.

Summary. In summary, 26°0'S 111°15'E is consistent with:

- eight reports from communications personnel who gave 26°S 111°E as the nearest position to the point of contact;
- ten reports from non-communications personnel who gave 26°S 111°E as the nearest position to the point of contact;
- an independent calculation of Kormoran’s distance from Cape Cuvier assuming that NW Cape was substituted for Cape Cuvier by Bunjes, a prize captain whose files were masked;
- a signal made by Kormoran on contact.

3.4 Category II: Statements that include any reference to a distance from the ‘coast’ or ‘land’ or from a coastal feature

Basic data. The second set of reports includes eleven reports that make some reference to a distance from the coast, or from the land or to the distance to a coastal feature south. Five of these references from three sources make specific reference to 120 miles from the coast. Three of these contributions came from Bunjes during the Search and Rescue interviews or interrogations, and Bunjes makes another reference to the coast in a postwar diary, although the distance was then given as 150 miles. Here too we have an obvious recall error as Bunjes was then working from ‘memory’ years after the event.

Five reports refer to either Perth or Fremantle rather than the coast, but the distances used are generally similar (e.g., 120, 125 & 130 miles) or they involve a fragment of ‘120 miles’ from the coast (i.e., 20 or 100 miles). The eleventh report is that they disembarked 60 miles from the land. Substitution of Perth or Fremantle for the coast conforms to the principle advanced to explain Bunjes’ error, that people routinely substitute familiar for unfamiliar concepts or events when they have forgotten all or part of the answer to some problem or event.

Converging evidence. How does ‘120 miles from the coast’ fit into the picture defined by a point of contact at 20°0’S 111°15’E? Gill (1957, p455) provides a crucial clue. Based on his analysis of the eyewitness testimonies, Gill-a vector for the movement of Kormoran from contact at 1600 to battle at 1730 (Gill, 1957, p455). According to Fugro Survey’s re-analysis of that vector Kormoran covered 19.2 nm during this period. More significantly, when Fugro Survey re-drew the coast-line of Western Australia 120 miles to the west of its real position, the intersection with the vector from the point of contact was very close. Most although not all of the accounts that involve reference to ‘120 miles from the coast’ refer to disembarkation. As Kormoran crew appear to have disembarked at various times between 1800/19/11/1941 and 2400/19/11/1941, this is vague, but Kormoran was not under power at the time, the drift vector would be short.

error involves Cape Cuvier. According to Fugro Survey, a position 100 nm SW of Cape Cuvier is actually within two nautical miles of 20°0’S 111°15’E
Summary

In summary, most of the reports that included reference to distance from the coast can be explained if it is assumed that one of Kormoran’s crew stated during or prior to disembarkation that the vessel was 120 miles from land. In some reports the link is explicit and the source clearly believed that he was 120 miles from the coast at the moment of disembarkation. The approximate position of the battle and of disembarkation by Kormoran’s survivors is 26°15'S 111°00'E.

3.5 Category III: Statements by Detmers and derivations thereof

Detmers. Detmers’ initial reports during the Search and Rescue operation identified 26°32'S 111°E as HMAS Sydney’s last position. As reported by the present author in the February, 1997 Forum, most of the survivor’s reports are consistent with the proposition that HMAS Sydney lost way between 1830 and 1900. The distance indicated in several of these reports is ten miles, a distance that would put HMAS Sydney between five and ten miles from the position offered by Detmers; that is, 26°32'S 111°E, close enough for a midnight estimate of the position of one burning and sinking ship from the deck of another burning and sinking ship.

Detmers subsequently changed his evidence. The first change from 26°32'S to 26°34'S is trivial. But the second, from 26°34'S to 26°34'S 10°E, is more interesting. One possibility is that this change, first reported in 1942, but subsequently taken up by two other sources in various forms, was designed to reconcile the movements of the lifeboats with the position of the battle. A second and more prosaic interpretation is that Detmers simply forgot one number. Detmers died in 1957.

Meyer. Meyer’s evidence is even more interesting. Meyer, who came ashore in one of the lifeboats that reached the coast, initially offered 27°S 111°E as the position of the battle, but a few days later, after he’d had been re-united with his colleagues and, presumably, Detmers, he changed his evidence to 26°30'S 111°E. Perhaps Detmers invited Meyer to provide evidence that would be consistent with the position given by him. Perhaps, now that the prospect of finding further survivors was virtually zero, Detmers persuaded Meyer to give the ‘true’ answer. Meyer’s change of position stands out as a possible example of misrepresentation about the position of the wrecks, although the survivors’ reports suggest that most of them were disinclined to discuss Kormoran’s voyage, equipment and operational procedures.

3.6 Summary

In summary, contact between HSK Kormoran and HMAS Sydney was established at or near 29°07'S 111°15'E; the battle occurred at or near 29°15'S 111°00'E. Kormoran sank a few miles to the north of that position; and HMAS Sydney sank 10 and 20 miles to the south of that position. Our analysis is summarised in Figure 2.

It is possible to apply a loose test to our analysis by combining the points of origin for the debris from HSK Kormoran and HMAS Sydney with our reconstruction of the hindcasting problem. Suppose that current is 0.16 knots at 0° (the figure adopted by Kirsner and Hughes (1995) based on a review of five sources), but that this figure includes both the oceanic and wind driven components. Suppose, furthermore, that wind is 13.4 knots from 181°, the long-term average based on 685 observations summarised in the Routing Chart Indian Ocean (1975). The predicted position for the life-raft from HSK Kormoran discovered by Aquatania is then 24°27'S 111°14'E given point of origin 29°15'S 111°00'E and a drift vector of 107 miles at 2° in 84 hours (1.27 knots). Similarly, the predicted position for the life-raft from HMAS Sydney discovered by Heros is 24°56'S 111°06'4E given point of origin 29°32'S 111°00'E and a drift vector of 146 miles at 2° in 200 hours (0.7 knots). The predicted positions are each within about 10 miles of the observed positions for those objects.

4 Port Gregory

Several authors have advanced the claim that the encounter between HMAS Sydney and HSK Kormoran occurred off Port Gregory (McDonald, 1993; 1997. Knight & Whittaker, personal communication). The claim is based on several forms of evidence, and we will treat each form separately.

4.1 Remote sensing

The critical data published by Knight and Whittaker involves application of a remote sensing procedure during recent flights over the region (Knight & Whittaker, 1997). However, until Knight and Whittaker publish an independent audit including information about the probability of false alarms10 and errors of omission11 for their procedure, the value of this evidence is unclear. On the basis of their remote sensing procedure, and a report by a survivor that they rowed toward a light, Knight and Whittaker proposed that the position of the wreck of Kormoran is 28°38'S 113°21'E (personal communication).

4.2 Hindcast evidence

Warren Whittaker has implemented a detailed analysis of the oceanographic data. This analysis was implemented in order to test the question: Could the debris and other drift data have originated at or near the sites identified by remote sensing; that is, 28°38'S 113°21'E? Whittaker answered this question in the affirmative. However, Whittaker’s analysis cannot be compared with the analyses published by Hughes (1991), Steedman (1991), McDonald (1991), Kirsner and Hughes (1993) or the Fugro Report (1997). Whereas Whittaker was attempting to prove that the wrecks could be as far south as 28°38'S 113°21'E, all of the other papers were prepared to identify the most probable location of the battle and the wrecks. Thus, Whittaker is not, unlike the other authors, disinterested in the answer.

Whittaker’s claim that his analysis supports the conclusion that the debris originated from 28°38'S 113°21'E depends on selection of the most extreme values for wind and current, and by counting wind driven current twice12. Whittaker makes the following assumptions:

- Velocity of the raft discovered by Aquatania estimated at 1.9 knots (personal communication, 30 March, 1998)

In the absence of specific information about the time or position at which Detmers observed Aquatania, the observation cannot be used to estimate drift.

10 Reporting targets when targets are not present
11 Failing to report targets when targets are known to be present
12 An error that is present in all of the published reports apart from Steedman (1991) and the Fugro Report (1997).
We accept this figure. But it should be noted that the values shown for the West Australian Ocean Current include wind-driven current. For the current values are based on ship-driven observations, and those observations have not been corrected for the wind-driven contribution. Because his analysis includes a calculation for 'drift current' or wind-driven current based on the velocity of the wind as well as oceanic drift (an observation that already includes the influence from this process), Whittaker's analysis involves a form of double counting.

- Wind is assumed to be 21 knots, giving leeway values between 0.42 knots (2% of wind) and 1.47 knots (7% of wind) for the objects discovered during the search and rescue.

As suggested above the figures supplied by Courtney (1991) and Southern (1991) meetng reconideration. von Malapert's diary, the fisherman's diary supplied by Glenys McDonald, and the long-term wind patterns all suggest that the debris and life rafts may have been subjected to lighter and more southerly winds.

4.3 Oral history

Glenys McDonald (1993, 1997) and Ted King (1997) have collected and published a rich and fascinating body of evidence about the experiences of people living in the Port Gregory area during 1941. Their interviews indicate that the people concerned believed that they heard or saw the battle, and that their memories were so clear that they could actually identify the direction or position of the battle or explosions from their positions at the time. They hold these views, furthermore, despite the fact that not a few of the eyewitnesses were comparatively young children at the time. The material that they have collected has great intrinsic value regardless of the accuracy of the reports.

It is our view that their interpretation of their reports is based on a false appreciation of the strengths and weaknesses of oral history. Oral history has earned a valid place in debates about the experience and the impressions of the individuals concerned. It is of course only the way to recreate the subjective experience of people who were there. However, when it is put to the test in regard to precise information about time and location, it will fail, and the magnitude of that failure will increase with the interval between the original event and the moment of recall. In addition, the eyewitnesses have access to other information during the intervening period, their reports are likely to converge, and increase in confidence, even if the reports are unreliable and quite unrelated to the facts as they were known and recorded at the time. Two examples merit consideration.

The first of these involves a study by Crombag, Wagenaar and van Koppem (1996). Crombag, Wagenaar and van Koppem interviewed people in Amsterdam about the then recent crash of an EI A1 airliner over that city. Nearly 60% of Crombag, Wagenaar, and van Koppem's interviewees indicated that they had seen the television film of the crash, despite the fact that there was no film of the crash.

Many of the volunteers who participated in this study went on to answer detailed perceptual questions about the attitude (angle) and state of the aircraft moments before the crash.

The people who participated in this study had received the news via the traditional media, and created an image or mental picture of the event. The product of which was rich enough to stand for the real thing. They were all young law students and they were all tested within 10 years of the crash. This study illustrates the extent to which memory depends on reconstruction. We need only hear or see a fragment of an event. We then reconstruct the event not as it actually happened, but on the basis of expectations and predictions about events of that type. If we then receive supplementary information from other sources, we automatically integrate it into our memory of the original event. Eventually, integration is so

11 That is, the period between the battle and their interview; there is no suggestion that collusion occurred during the interview process.

A comparable and in some respects more powerful example of the problems associated with eyewitness testimony was produced by the Watergate break-in. John Dean provided detailed testimony about events in the White House during the period after the break-in. He described the proceedings on a meeting-by-meeting basis, providing dates, details about the people attending each meeting, and discussing the topics discussed at each meeting. He even paraphrased some of the things that were said by Richard Nixon and other people at specific meetings (Neisser, 1977). Subsequently, tapes of the meetings became available, and Nixon was able to compare John Dean's testimony with the transcripts. In brief, Dean was right in his claim that Nixon had orchestrated a cover-up, but wrong about virtually every detail.

The implication of these examples is that we should not expect eyewitness testimony to provide reliable information about the time and location of specific events after 30 or 40 years. At most, we can expect reports to be based on a shadow of the truth. One possibility is that one or two people near the coast actually saw a reflection of the flash from the explosion on Kormoran near 28°S 111°E at 2400/19/11/1941, and that they and their friends reconstructed everything else from that experience and the reports that followed it.

The testimony provided by the Kormoran survivors also involves a measure of forgetting. But the interval involved is perhaps 200-400 hours rather than 40 years; they were all certainly at the scene; and many of them were experts on the topic of their reports. Perhaps the most compelling testimony comes from the crew who worked in the radio and communications branch. They claimed that HSK Kormoran sent a signal as an allied merchant vessel as if or shortly after contact with HMAS Sydney, and they describe the content of that signal. That a signal was sent, read and recorded is evident from the reports provided by Uco and Geraldino radio, even if these reports were not made available in good time. It is in addition difficult to understand why HSK Kormoran would have sent false position information while in view of HMAS Sydney. And, finally, we must assume that the signal sent by HSK Kormoran's was received in Australia, and that misinformation about that event would be easily detected.

4.4 Explaining all of the data

Accounts of the location of the battle that use the archival information selectively do not carry conviction. It is not legitimate, for example, to accept a survivor's statement that 'we rowed toward a light' as evidence that the battle occurred near the Abrolhos Islands (Whittaker, personal communication) while selectively rejecting approximately 45 statements by 20 or so survivors that they were not near the Abrolhos Islands. This should not be taken as an argument that all of the survivors told the truth and nothing but the truth. The point is that each acceptance and each rejection of a report or statement must be motivated by arguments other than the fact that it does not fit the authors belief's about the location of the battle. The same problem actually applies to the explosion aboard HSK Kormoran at 2400/19/11/1941. Why believe that report yet dismiss other reports about the scene of the battle or distance from the coast?

12 John Bys analysis does not preclude this (Bye, 1977).
13 Even if they had a limited view of the event.
14 A factor that should provide them with some protection against forgetting.
15 Reports of information that involved their areas of expertise should be superior to reports about the same information by non-experts.
16 For example, statements that contact occurred at 26°S 111°E or statements that disembarkation occurred 120 miles from the coast.
4.5 “The scene of the engagement was approximately 130 nautical miles west of Perth”.

One final report is so bizarre and so improbable that it is hard to exclude, even though it must be discounted as evidence about position. A minute paper signed by the Director of Military Intelligence on December 31, 1941 includes two intriguing remarks by a survivor or survivors who had been rescued by Aquitania. The first remark is that the “scene of the engagement was approximately 130 miles due west of Perth”; the second was that “they were picked up approximately 50 to 60 miles from Perth and claimed they had passed over the spot where the engagement took place and had seen no suggestion of wreckage”. Now the reference to Perth is patently absurd, as are their assumptions that they were drifting toward Perth before they were rescued, and that Aquitania sailed away from Perth after it had rescued them, however the relative movement described in the report is virtually identical to that offered in the present analysis. Seventy-five miles, the difference between the two values specified in the report, is within ten miles of our estimate of the distance actually covered by that life raft before it was discovered by Aquitania. This evidence must be classified with the claim that survivors who claimed that they rowed toward a light were actually rowing to a lighthouse on the Abrolhos Islands.

5 The case for a search

The case for a search rests on three arguments. The first argument involves scientific and historic curiosity. Questions about the locations of the wrecks pose a rich challenge that requires the integration of expertise and models from several disciplines. There are precedents. For example, although the motivation was historical, and political at that, the RN conducted a systematic search in 1919 for one of the battle-cruisers lost at Jutland (Tarrant. 1986). They found the wreck within two or three miles of the predicted location. Recent reports in the media also suggest that external analysis of Titanic has produced surprising results about the extent of damage to her hull. External analysis of artillery damage to Kormoran might or might not reveal evidence consistent with the proposition that an initial battle occurred at long range, an interpretation first advanced by Bernard Hall in London two weeks after the battle. This argument does not justify expenditure of public funds.

The second argument involves memory and commemoration. The argument is that knowledge about the resting place of the wreck of HMAS Sydney is integral to our commemoration of that vessel and her crew. The US government places essentially the same value on the remains of individual soldiers and airmen lost during the Vietnam war. This argument does justify expenditure of public funds.

The third argument concerns the management of national disasters, in peace and war. It is our contention that disaster management in a democratic society requires full accountability and transparency: and that the government of the day should leave no stone unturned in its attempts to understand the conditions that led to specific disasters. The extent of public interest in HMAS Sydney illustrates this point directly, and suggests, furthermore, that conspiracy theories expand to fill the vacuums left by the absence of transparent disaster management processes. Discovery of the wreck site will not dispel all of the demons. But it will expel some of them, and that is perhaps the best that can be expected 60 years after the event. This argument does justify expenditure of public funds.

6 References


Gill's vector ('Contact to battle') 160 NM south west of Cape Cuvier (Sunjes)

Battle and Disembarkation position

Last sighting of HMAS Sydney by survivors

Last sighting of HMAS Sydney by Detmers

Gill's vector ('Contact to battle') 160 NM south west of Cape Cuvier (Sunjes)

Battle and Disembarkation position

Contact Positions

FIGURE 2

2742