

NRAO ONLINE 15 Madsen's Resignation Radiophysics Advisory Board Chairmanship, July 1942

Re-organisation of the RAB – July 1942, Madsen's Resignation as Chairman

As we have seen in Chapter 9 and ESM_9.3, Madsen was under extreme pressure in early 1942; he had the tense interview with the War Cabinet on 26 January 1942; the meeting did help to clear-up some of the recriminations after Darwin. However, there were many other issues, each of major concern: the RPL was too involved in production to the detriment of research; the staff of over 100 was too small for all the chores thrust upon the lab; overseas supplies of radar gear had hardly materialised; and the civilian leadership of RPL was being questioned by the Military. The Martyn crisis of the previous year had led to a lack of confidence of the Military in the ability of CSIR to deal with problem staff; Madsen had departed in March 1941 to the UK; he had been absent during the crucial post-Martyn imbroglio (see NRAO ONLINE 7). From the viewpoint of the 21st century, the replacement by the young, inexperienced and thoroughly level headed Fred White was to prove a major advantage.¹ He was learning fast. He had started to remove the smothering cloak of secrecy in radar research by starting to involve private firms such as STC (Standard Telephone and Cables), Philips, AWA (Amalgamated Wireless Australasia) and HMV in the production of radar equipments. "Absolute secrecy was sacrificed at the altar of greater production."²

Another change occurred in January 1942 that assisted to sort out the frequent conflicts at the dividing line between prototyping-production. The Ministry of Munitions had already been engaged in 1941 by White to coordinate activities between RPL, the PMG and the Services.³ Now in January 1942, the Directorate of Radio and Signals (DRSS) was founded as a separate entity in the Department of Munitions under the leadership of Lt Col S.O. Jones (formerly of the Australian Imperial Force in the UK-1940-1941). Based on the archives of 1942, many letters are found from White/Madsen to Jones about requirements for Australian manufacture or importation of radar components from overseas. The DRSS did not undertake production, but handled the demands of RPL and the Services via contracts with private firms. Initially the DRSS

¹ Evans, W. F. (1970). "History of the radiophysics advisory board 1939-1945." Melbourne (Australia): CSIRO, p. 57: "As a newcomer to the scene, [White] was able to serve as a neutral element amongst the mounting dog-fights proceeding around him; and this gave him initially the chance of a hearing with all contenders. He also seemed to have the time and the temperament to deal with day-to-day detail himself when necessary, where formerly other members of the Board had appeared too engrossed in other urgent matters to do anything but delegate responsibility for RAB problems. This, in itself supplied, an element of stability and practicality which had perhaps up to this point been deficient in the Board's operations." Not surprisingly, these characteristics were to become crucial as the crisis in the attempt by the Military to move RPL to the Ministry of Munitions later in 1942.

² Schedvin, C. B. (1987). *Shaping Science and Industry: A History of Australia's Council for Scientific and Industrial Research 1926-49*. CSIRO PUBLISHING. p. 265

³ On 23 September 1941, White had proposed to the PMG "closer association with the Ministry of Munitions and Supply." (Evans 1970, p. 62).

was concerned only with radar, but in July 1942 it undertook co-ordination of public [e.g. PMG] and private productive capacity of all radio requirements, in addition to radar.

The frustrations of the Military occurred in two waves, early April and early July 1942⁴. The first initiative originated from the Army at the RAB meeting number 19 on 2 April 1942. The Chief of the General Staff Lieutenant General V.A. H. Sturdee complained about the necessity of his being at all meetings, suggesting that he could be represented by Major-General Whitelaw, an old “friend” and supporter of RPL who was keenly aware of the successes and the failures (e.g. Martyn with the affair Ella Horne) during the past three years. The minutes stated:

Lieut. General Sturdee raised the question of the continuation of the Board. He was of the view that radiophysics matters had progressed to such a stage in Australia that the Board was unnecessary, although the Technical Committee [first meeting 7 January 1942 with White as Chairman and radar experts from the Services including A.G. Pither from the RAAF and S.H. Witt from the PMG] could still be very useful. He felt that as Chief of the General Staff he would be unable to attend any further meetings ... and considered that Brigadier Whitelaw would be a suitable deputy. The other Service Chiefs and Mr N.K. S.Brodribb [Deputy Director-General of Munitions] were in agreement. It was finally arranged to discuss the abolition of the Board at a short meeting at which Sir Rivett could attend.

Within days, Madsen and Rivett began a discussion by letter of the implications. From the measured tone of the letters, we can see that the CSIR was not caught by surprise. Clearly, the issue of getting rid of the RAB had some resonance within the group of Rivett-Madsen-White. On 14 April 1942, Madsen wrote to Rivett:

I can quite appreciate Sturdee’s desire to pass over all technical matters to a suitable officer in his Service ... From the Service point of view, the Technical Sub-Committee as presently constituted is undoubtedly of considerable value to all the different bodies concerned and probably gives Chiefs of Staff much more effective assistance than they can obtain through the Board. It has been suggested to me that the Chairmanship of that Committee might with advantage be held by a senior officer of the Munitions Department, and from the point of view of general co-ordination I think there is something to say for this. The thing that gives me most concern at the present is the question as to who should lay down the general policy covering the work to be carried out for the Services and Munitions in the RPL. [The problem was that the Service members are too junior, and] White and I would hesitate to accept their opinion on the question of directing even generally the work of the Laboratory.

⁴ Based on NAA KE 5/23 for the events of April 1942. For the July 1942 events, see Evans (1970, p. 116-126), Schedvin (1987, p. 265-268) and Pither (1946, Appendix A “Radiophysics Advisory Board”, p. 1-5).

With the four groups CSIR RPL, PMG, Munitions and the Military (army, air force and navy) as major players, planning and coordination were indeed complex.

Rivett wrote Brodribb (Deputy Director-General Munitions) on 16 April 1942, suggesting a meeting the following week: "In view of the decision at the last meeting of the RAB [2 April] to wipe out it out of existence ... can we meet on 24 April with Madsen to go carefully into the question of future control of RP work, and particularly the question as to who is to lay down the general policy covering work for the Munitions Department and the Services in the RPL."

Likely there were numerous meetings and discussions in the following months. These discussions occurred outside the formal framework of the RAB. Evans (1970, p. 116-117) has provided the sequence of events. On 2 May 1942, a meeting of Rivett, Madsen, Jones and Brodribb discussed a memorandum proposed during the previous month by Major-General Whitelaw. With some modifications, his memo was accepted. With these changes, the Chiefs of Staff would no longer be members of the board, replaced by officers (Senior General Staff Officers) who were experts in radar (e.g. Whitelaw, Commander H.J. Buchanan of the RAN and Pither of the RAAF). Also representatives of the PMG, CSIR and the Ministry of Munitions were to be members. At this point, the story becomes confused. This proposal was sent to the Minister for the CSIR, J.J. Dedman, on 12 June 1942. Then on 1 July 1942, Rivett wrote Madsen with a slightly different proposal from the CSIR Executive for a revision of the RAB: the creation of the RDF Policy Committee. This committee was to rule on the "strategic situation" and the evaluation of the means by which radar could be used. The committee was to report to the General Staff, not to any cabinet member. The problem to be solved was simple:

... [T]he work of the Laboratory is handicapped by an absence of decision, which is obvious today, in the plans of the Services and therefore in the statement of their requirements ... [I]t is at least possible that at the present time a policy for offensive (and defensive) strategy in the South West Pacific, and therefore an assessment of the best ways to apply RDF measures in its support, is nearer to reasonably precise statement than has been the case at any previous time in the RAB's history.⁵

But within a few days, the Army had rejected this suggestion. Whitelaw had discussed this plan with General Sturdee, who realized the Chiefs-of-Staff would have to be involved again with a board or committee, similar to the RAB. Major policy matters could always be sorted out by a consultation process.⁶

Thus by the time of the two meetings of the RAB on 3 July and 11 July, a number of options were open for the newly constituted RAB. By this time, the Chiefs of the three Services were not present, being already replaced by the new members RAAF-Pither, Army-Whitelaw and Navy-Buchanan.

⁵ Evans, 1970, Annexure 35.

⁶ Op cit, page 118

Decisive and confusing meetings of the RAB occurred over the first two weeks in July 1942. Evans (1970, p. 117-126) has provided a vast collection⁷ of documents, describing these events. These would lead to the demise of Sir John Madsen's dominance in Australian radar activities and to a rapid fading of the prominence of the RAB in Australian radar policy. The basic cause of the Military's frustration was their concerns about the nature of leadership at RPL and continued problems of coordination with **production** of radar equipment.

3 July 1942 was the first of two decisive meetings:

The Board met in sombre mood ... on 3 July ... A thorough review took place of the current RDF policies of the various constituent instrumentalities ... [I]t was clear that Australia's priority was necessarily low for received supplies of highly sought [radar] material from the US and the UK. The importance of maximum local productivity was thus clearly mandatory ... [During the meeting], General Whitelaw tabled several motions, which in effect would have excluded CSIR from further participation in RDF work.

The clear purpose of the Service Chiefs was to abolish the RAB entirely and to diminish significantly the role of CSIR RPL. "The oversimplified Service opinion was that the interests of research science had prevailed over those of the arsenal, and that it was now time to reverse the relationship. (Schedvin, 1987, p. 266). The key provisions of Whitelaw's motions were expurgated from the official minutes, but located by Evans in his 1970 account. (Evans, p. 118-120).

General Whitelaw stated that while CSIR had done an excellent job in developing RDF equipment in Australia, a stage had now been reached when orders for sets could be treated in similar way to orders for guns. Accordingly he thought that changes were desirable and moved that:

- (1) There be appointed in the Ministry of Munitions a Director of Radio Development who shall be Chairman of the RAB.
- (2) The RPL, set up and at present administered by the CSIR, be taken over by the Ministry of Munitions and be administered by the Director of Radio Development. [our emphasis]**
- (3) That part of the organisation of the PMG, previously charged with responsibility for RDF production, be placed at the disposal of the Director of Radio Development for development and design work.
- (4) The Director of Radio Development be responsible for all RDF development and design work other than that done within the Services on their responsibility. [In effect the creation of a "radar dictator."]

⁷ We have used the Minutes of the RAB Board, which were partially censored. Evans (1970, p. 118-119) has fortunately published the expurgated text concerning the most sensitive aspects of the Whitelaw proposal to move RPL from the CSIR to the Department of Munitions.

Further discussion at the meeting on 3 July was postponed until David Rivett could be present (on 14 July 1942). General Whitelaw informed the RAB that at the next meeting he would propose that the new RAB would consist of (1) the chairman- Director of Radio Development [later RDF Production], (2) the Director of Radio and Signals Supplies (Jones), (3) two representatives from each of the three services, (4) two representatives of the Directorate of Radio Development and (5) two other members co-opted by the Board to provide additional scientific or technical advice. "The Board shall advise the Director of Radio Development and Services on major matters of policy ..." (Evans, 1970, p. 120). No explicit mention of CSIR or the RPL was apparent.

The meeting of the RAB on 14 July 1942 was the key event, leading to the resignation of Madsen and the reorganisation of the committee. The official minutes as published did not contain any censured portions:

The Chairman (Sir John Madsen) stated that some time before the previous meeting he had felt that in view of the somewhat advanced stage of [sic]radio-location had reached in the Services, and also in view of the importance it was now necessary to place on production as distinct from research, he had mentioned to members of each of the Services that it might be well for him to resign the Chairmanship of the Board. That action would also prevent any possibility of a feeling arising that people on the research side were having too much say in the work of the Board. He was still of the same feeling, and he now proposed to submit his resignation to the Government.

The new Chairman of the RAB was to be Daniel McVey, Director-General of the PMG and "one of the Commonwealth's most experienced public servants". (Schedvin, 1987, p. 267). McVey was appointed in September 1942; at the meeting of the RAB on 24 September, McVey was Chair (the two CSIR representatives were Rivett and Madsen).

The next major topic for the 14 July 1942 meeting was a further discussion on the future development of production policy for radar in Australia. The consideration from the previous week's discussion about the re-organisation of radar research and production in Australia continued. A major development had occurred after the suggestion had been made on 3 July to transfer the RPL from CSIR to the Ministry of Munitions, an event that would have amounted to a vote of no confidence for the CSIR if it had been accepted. Fred White had met General Whitelaw and Commander Buchanan (Navy) on 9 July 1942 and was able to reverse the catastrophic course that had been proposed for CSIR. White was able to convince Whitelaw and Buchanan to soften their drastic proposal of 3 July to move RPL to the Ministry of Munitions:

Both [Whitelaw and Buchanan] emphasised that such action [the move to Munitions] on their part had not been intended at all. They stated that they were particularly

concerned with the lack of production of RDF equipment in Australia and wished to strengthen the arrangements existing here for the control of the productive effort.

The RAB minutes for the 14 July 1942 meeting were extensive; the future of radar activities in Australia were at a crossroads. The minutes included many details of the follow-on discussion as to the future role of the RAB as well as RPL: (Additional Note 1 contains different assessments of the 14 July meeting given by Pither in 1946 and Schedvin in 1987):

Major General Whitelaw stated that since the last meeting, the Services had felt that the proposals outlined in the motions he had moved on that occasion were too far reaching and unnecessarily detailed. What the Services were striving for was to get production put on a more satisfactory basis. He would thus like to withdraw his previous motion and instead to move as follows

1. It is considered that the proper development of R.D.F. in Australia required a fundamental change in the present organisation. While the present functions of the Radiophysics Laboratory in its research and scientific aspects are quite clear, and require no fundamental change, it is considered that the Laboratory has become unduly involved in production problems.⁸
2. The present organisation of the Directorate of Radio and Signal Equipment in the Ministry of Munitions is considered entirely satisfactory for the purpose for which it was created, which is the procurement of the essential materials.
3. It is, however, considered that the responsibility of the Ministry of Munitions requires extension to cover a wider field and it is therefore recommended that the Ministry be requested to set up a new Directorate of Radio Location, The Director would act as the liaison officer of the Radiophysics Board to co-ordinate the work of:
 - (a) Radiophysics Laboratory of CSIR
 - (b) Radiophysics Manufacturing Development Section of the PMG's Department
 - (c) The Directorate of Radio and Signal Equipment, Ministry of Munitions, with the operational needs of the Services; and as an officer of the Ministry of Munitions, would be vested with general supervisory powers over the production and development of radiolocation including authority to procure essential supplies in anticipation of Service requirements.

⁸ Schedvin (1987, p. 266-267) has suggested that this statement represented a "mild censure" of RPL which was unfair since RPL had only become involved in production due to attempts to "to fill the many gaps in productive capacity" in the confusing period at the beginning of WWII in Australia. "Judgements made in the crisis of war are not noted for their even-handedness."

It was generally felt that it would be desirable to have someone in the Ministry of Munitions to follow up the decisions of the Board, and to help in the co-ordination of the activities of the different organisations.

After the resignation of Madsen was announced, a number of the participants spoke about the role of Madsen since the beginning of the RAB:

Sir David Rivett stated that in the early days of 1939 no one in the Services was intimately concerned with radio-location and Sir John Madsen with his knowledge of the subject was the obvious choice as Chairman. However, with the present-day emphasis on production and operation as distinct from research, there was need for a change if only to avoid any feeling that the RPL was attempting to dominate the field of activity (production and operation) which was definitely not the concern of CSIR. The Executive of CSIR felt that it would be well if the Chairmanship were now taken over by someone not directly associated with the [CSIR]. Accordingly, while fully recognising the wonderful work Sir John had done in helping to bring RDF activities to their present stage, he felt that the move was a wise one and that all members of the Board would appreciate the high motive behind Sir John's move.

[Rivett, General Whitelaw and Daniel McVey of the PMG expressed their thanks to Madsen.] [They] stated that radiophysics in Australia could not have reached its present stage of development without Sir John's assistance which Australia could not sufficiently repay him.

Wing-Commander Pither expressed to Sir John the appreciation of the RAAF, and stated that the Force owed the whole of its development of RDF to the Laboratory and that, in turn, went back to Sir John; in other words, **RDF had up-to-date been almost entirely Sir John's show.** [our emphasis]

In Additional Note 2 we summarise the evolution of the RAB after July 1942. By 1944 the RAB ceased to exist.

Additional Notes

Additional Note 1:

A: Pither's Critical Remarks in 1946:

In the Pither Account, ([Appendix A p4](#)), "Radiophysics Advisory Board", he provided his interpretation of the events of 14 July 1942:

Then at the meeting of 14 July of the RAB, 'a revolution took place'. Still there were problems with prototyping, it hinged around the fact that the design and production of radar equipment had lagged so much that the services had lost faith in the CSIR management. The Services arrived at the RP Advisory meeting of 14 July, determined to overthrow CSIR control.

CSIR was aware of the problem, as Sir John Madsen resigned. He pointed out that the role of CSIR was to engage in research and that the problems of production were rightly the problems of the Services or other organisations.

Mr McVey (Sir Daniel McVey, Director General of Posts and Telegraphs and Secretary of Aircraft Production) took over as chair of the Radiophysics Advisory Board, remaining from 1942 to 1946. From this point onward, the RAB became a figurehead group, meeting less frequently, with the real work being done by the Technical Committee. More efforts went into insuring the "proper roles of each of the authorities concerning with radar, i.e. RP laboratory, Munitions, PMG, RAB, and the Services."

B: Schedvin's summary of the post 1942 Radiophysics Advisory Board

Schedvin (1987, p. 268) summarised the final years of the RAB. By the end of 1942, the role of this body was appreciably diminished:

The new board clarified the responsibility of the laboratory in relation to the Ministry of Munitions. The laboratory's role would be restricted to the development of prototypes; it was to be concerned with devising equipment suitable for use in the South-West Pacific Area. Scientists might be loaned to the production authority if needed to assist technology transfer, but it was to be the responsibility of the Ministry of Munitions to produce fully engineered models. This was a division of responsibility which suited both CSIR and the contractor. The physicists were able to concentrate on research and development, and were no longer the butt of impatient Service demands. From 1943 the board met less frequently, and no longer played a central role in policy.

Details of the RAB in the years 1942 to the end of the war in 1945 are provided in Additional Note 1.

Additional Note 2.1942-1944 , An Inactive RAB, Disbanded January 1944

Since the resignation of Madsen as Chairman of the RAB in July 1942, the RAB met less often. More of the details were sorted out by the Technical Committee, White as Chairman. But coordination problems did continue; the lack of real authority of the RAB (only advisory) and

the indirect connections with the Service Chiefs continued to be a problem. In fact, each of the three Services had their own agenda as far as radar was concerned. White saw these problems on a day to day basis.

The Technical committee brought into the discussions more operative Service and other personnel further down the line of command. "However, it was almost inevitable that the Technical Committee with its more frequent meetings, tended to usurp the functions of the [RAB]. This began to leave the members of the RAB with an uneasy feeling of a redundancy." (Evans, RAB, p. 180) White wrote about this on his return from North America and Europe (24 Jan 1944). Clearly, he had thought a lot about the role of the two committees during his trip overseas; also, he had been having discussions with Rivett. (The post-war evolution had also been discussed.) (Evans, RAB, 1970, p179-184). Friction between the RAB and the Technical committee had developed⁹. White wrote to Rivett on 24 January 1944, a short period after White's return from his trip to the UK and North America. (Evans, p. 181):

[White] I feel that it may be helpful to you if I put on paper some of the matters which we have discussed together concerning the Radiophysics Board and the Technical Committee.

Firstly, I feel very strongly that the atmosphere which has always existed and still persists at the Board meetings and meetings of the Technical Committee is **quite false**. These meetings seem to become unnecessarily **controversial** - I say unnecessarily because outside the meetings we have frequent and perfectly amicable conferences with the Service officers concerned. (our emphasis) In fact most of the work of sorting out the ideas as to what shall be done and relating them to Service needs, occurs at special meetings which are now frequently held with representatives of the Services, RP and the Ministry of Munitions. Since the relationship between the bodies concerned is one which requires each of them to take executive action independently but as a result of mutual agreement, these semi-informal meetings are quite as effective and authoritative as meetings of the Radiophysics Board or Technical Committee.

When the Technical Committee was brought into being it was intended that it should discuss problems. I think it is true to say this has never occurred, and the reason is fairly obvious. It is difficult to discuss a technical problem briefly. There are many factors entering into the discussion which require examination, and one meeting once a month is quite inadequate. The Technical Committee is therefore becoming a body at which the general policy of co-operation is discussed; in other word, it is now taking the place of RAB itself. When one examines the action of the Technical Committee, it seems to

⁹ Evans (1970, p. 180) wrote: "The double harness- arrangement between the RAB and the Technical Committee appeared to work reasonably well" as he described the early days of the RAB, 1941-1942. But by 1944, ill will had again developed.

me quite obvious that the points which are decided could equally well be decided by **personal contact** with the people concerned or by correspondence.

I think it is very necessary indeed that we should examine the requirements for a Radiophysics Board and Technical Committee. At the present time there is a vast amount of activity connected with the research, development and production of radio and radar equipment in this country. This activity has opened new fields both of research and of production, and it will have a profound effect on the industry of this country after the war. If a radio board is to exist, it should be a body which concerns itself with the general policy of all those separate departments which are participating in these activities for the purpose of co-ordinating them so that during the war the best possible equipment can be produced in the minimum of time, and so that when the war ends the Government of this country will have a **sound policy of post-war development**. [our emphasis]

I do not mean to imply in making these statements that the Board need be in a position of authority to force a particular Service to take a given line of action. This is actually done in England but it is possible there because the Radio Board, being a committee of the British War Cabinet, has vested in it full authority ...

Rivett was of the same opinion. At the 32th meeting of the RAB board three days later (27 January 1944), Rivett's agenda paper adopted the points made by White, almost to a letter. He was generally negative about the status as he asked the RAB "whether the Board is as useful and satisfactory a body as is required from a war standpoint in radio and radar research, development and production." (Evans, RAB, 1970, p.183) Rivett pointed out that the RAB had no executive authority (it was advisory only), and "it is doubtful whether its advice carries much weight with [the Services or politicians]". The RAB had no official guidance from any of highest Australian military authorities or the War Cabinet of Curtin. Rivett essentially asked the Board to disband: "If this lack of co-ordination [of radar activities] in the development of one of the major scientific activities in the country is the serious matter which some people fear it may be, the Board should at once determine what change, if any, is desirable in its own *raison d'être* and press immediately for its adoption by the [government of Australia]." The RAB essentially ceased to exist with only two more meetings in 1944 and 1945 before the war ended in August 1945. The Technical Committee continued with monthly meetings during the period. (1944-1945)¹⁰

¹⁰ Evans (1970, p. 183) has provided a poetic and possibly platitudinous description of the effective end of the RAB. The Board had served its purpose in an advisory capacity, providing coordination since 1939. "So, **like an old soldier**, the RAB quietly faded away. In perspective, this manner of passing was perhaps

the Board's final gesture of anti-bureaucratic merit. With complete disinterest in its own survival, the Board was content to stand aside, once its self-appointed task was fulfilled- or otherwise delegated to other authorities." The RAB had indeed provided leadership and coordination in the period 1939 to 1941.