85. (U) LTJG Hopson believed the base course and speed of the formation to be 185, 16 knots, and that MELBOURNE would continue the zigzag (R, p. 117, 119, exhibit 30).

86. (U) LTJG Hopson believed that during the "Form Column" maneuver, MELBOURNE's course would be 205° (R, p. 117).

87. (U) LTJG Ramsey knew that MELBOURNE's course and speed in accordance with the zigzag plan was 260°, 18 knots, at the time of execute "Form Column" (Exhibit 100).

88. (U) Whatever exchange may have taken place between LTJG Ramsey and LTJG Hopson in connection with the maneuver, it failed to reveal their divergent views as to Evans' speed and MELBOURNE's base course, course steered, and speed (Deduction).

89. (U) At the time the signal to form column was received, the CIC Watch Officers were ENS Alan H. Armstrong, USN, as Evaluator, and ENS Robert C. Brandon, USN, as Gunnery Liaison Officer. Neither survived the collision (R, p. 112, 586).

90. (U) Whatever exchange may have taken place between LTJG Ramsey and LTJG Hopson in connection with the maneuver, it failed to reveal their divergent views as to "A.S speed and MELBOURNE's base course, course steered, and speed (Deduction).

91. (U) There is no conclusive evidence as to whether or not CIC made recommendations or provided information to the EVANS' bridge (R, p. 128; Exhibit 100, 101).

92. (U) The radar bearing of MELBOURNE, before "Form Column" signal, which LTJG Hopson says he took as 084° was incorrect as such a bearing would have placed MELBOURNE well to north of MELBOURNE's track throughout the maneuver (R, p. 117; Deduction).

93. (U) At the time he took the radar bearing, LTJG Hopson measured a radar range to MELBOURNE of 3,800 yards (R, p. 117).

94. (U) LTJG Hopson did not make a visual sighting of MELBOURNE before he gave the order 100 right rudder (R, p. 117).

95. (U) LTJG Hopson, who had the conn, either on his own initiative or at the direction of LTJG Ramsey, ordered 100° right rudder after receipt of execute "Form Column" signal (R, p. 117; Exhibits 100 and 101).

96. (U) CO EVANS was not called by the 000, LTJG Ramsey, or by anyone else throughout the period from "Execute to follow form column" until collision (R, p. 124).

97. (U) At some stage during the "Form Column" maneuver, LTJG Ramsey attempted a maneuvering board solution but abandoned it because he thought it was impracticable, due to the close range (Exhibit 101).

98. (U) The movement of EVANS towards her course from forward of MELBOURNE caused concern in the mind of CO MELBOURNE and he ordered the transmission of a signal telling EVANS that his course was 260° (R, p. 85, 86).

99. (U) A signal was sent to EVANS from CIC 472.1.0 meaning, "My course is 260" time 2012". The figures for the course were sent in code (Exhibit 27).

100. (U) The signal was received and receipt was transmitted by EVANS (Exhibit 27).

101. (U) Either before, at, or immediately after the "Form Column" signal was executed, CO MELBOURNE, ordered MELBOURNE's navigational lights turned on full brilliance (R, p. 168).

102. (U) Within two minutes after the execution of the "Form Column" signal, MELBOURNE's navigational lights were on at full brilliance where they remained until collision (R, p. 168, 266).

103. (U) When LTJG Ramsey received the PRITAC message from the Task Unit Commander reading "JULIET SEVEN THIS IS MIKE TWO MIKE CORPEN SHACKLE ZULU UNIFORM UNIFORM LIMA UNSHACKLE TIME TWO ZERO ONE TWO," he unshackled the letters ZUUL to read 160. The correct unshackle by the code in force for 3 Jun 1969 was 260 (Exhibits 100, 101).

103a. (U) When LTJG Ramsey received a PRITAC CORPEN signal reading in its unclassified form "EVANS this is Task Unit Commander, My course is 260 TIME 2012" (ZULU TIME), he decoded the codewords representing 260 as 160. The figures 260 had been correctly coded, by the code in force at the time, and all other witnesses who decoded the figures decoded them as 260 (Exhibit 101).

104. (U) The letters ZUUL do not unshack to 160 by the code for any day in Jun 1969.
105. (U) By the code in force at the time the only combination of letters in any way similar to ZUUL which unshackle to 160 is NVUL.

106. (U) LTJG Ramsey received the signal MIKE CORPEN 260 TIME 2012 (Z) which he recalled at different times to read either "F CORPEN (Exhibit 100) or "M CORPEN 160" (Exhibit 101) and interpreted it to mean that MELBOURNE was coming left to a course, possibly a flying course, of 160° when the signal was an information signal which in fact meant, "My course is 260°".

107. (U) LTJG Ramsey was aware from visual observation that he was on MELBOURNE's port bow as EVANS' heading reached about 020°-030° in her initial turn to starboard before LTJG Hopson ordered left rudder (Exhibit 101).

108. (U) When EVANS' heading was approximately 040° during her initial right turn she bore about 245° from MELBOURNE and was at a range of about 2,600 yards (Deduction).

109. (U) After EVANS had steadied on a course of about 050°, which was a collision or near collision course, with MELBOURNE on a course of 260°, LTJG Hopson was confused because the visual bearing of 070° which he took of MELBOURNE at this time had moved left instead of right as he expected. This was the first visual bearing he took during the maneuver (R, p. 117).

110. (U) When EVANS steadied on a course of about 050° she bore about 245° from MELBOURNE and was at a range of about 2,200 yards (Deduction).

111. (U) EVANS was seen by observers in MELBOURNE to steady on a course which the CO MELBOURNE believed to be a collision course (R, p. 86).

112. (U) CO MELBOURNE ordered the transmission of a signal to EVANS, "You are on a collision course" (R, p. 86).

113. (U) When CO MELBOURNE ordered this transmission, EVANS bore 245° from MELBOURNE and was at a range of about 2,000 yards (Deduction).

114. (U) After EVANS steadied on a course of about 050°, LTJG Hopson either on his own initiative or at the direction of LTJG Ramsey ordered 5° or 10° of left rudder (R, p. 117).

115. (U) As EVANS began to swing slowly left with 5° or 10° left rudder, EVANS' bearing from MELBOURNE, having been steady at about 245° for about a minute, began to draw right - that is, finer on MELBOURNE's port bow (R, p. 86).

116. (U) Whatever visual checks LTJG Hopson made of MELBOURNE did not reveal to him he was on MELBOURNE's port bow and not on MELBOURNE's starboard bow as he believed (Deduction).

117. (U) The signal from CTU 472.1.0 to EVANS, "You are on a collision course," was transmitted and due to the non receipt of a "Roger" the signal was repeated (R, p. 249).

118. (U) It is not known whether LTJG Ramsey made, with binoculars, a visual check of MELBOURNE (Exhibits 100, 101).

119. (U) MELBOURNE's port navigation light at full brilliance showed LTJG Ramsey at this time a discernible aspect of the carrier (Exhibit 101).

120. (U) Red lights were observed on the bridge or directly below, on the starboard side of EVANS, after she completed her initial turn to starboard in her maneuver to take station (R, p. 170, 171, 341).

121. (U) EVANS' port and starboard running lights were on at the time of collision. There is no evidence as to who ordered or turned them on, or when they came on (R, p. 282, 264).

122. (U) About 15-20 seconds after he heard the signal, "You are on a collision course," LTJG Ramsey ordered "Right full rudder" (Exhibit 101).

123. (U) LTJG Ramsey then transmitted to MELBOURNE, "Roger my rudder is right full over," which was receipted for by MELBOURNE (Exhibit 101).

124. (U) At approximately the same time as LTJG Ramsey's order, "Right full rudder," CO MELBOURNE ordered, "Port 30 - Port 35" (Deduction).

125. (U) When the wheel orders, "Right full rudder," in EVANS, "Port 30 - Port 35," in MELBOURNE were given, the bearing of EVANS from MELBOURNE was about 247° and the range about 1200 yards (Deduction).
126. (U) CO MELBOURNE then ordered the transmission of a signal to EVANS, "I am going hard left." He also ordered the sounding of two short blasts on the siren which was done within a few seconds (R, p. 87).

127. (U) The transmission of the signal, "I am going hard left," was commenced and completed within 15 seconds after the transmission, "Roger my rudder is right full" (deduction).

128. (U) The ships proceeded under these rudder orders (Findings of fact 120 and 122) until the collision.

129. (U) Shortly before the collision, the OOW MELBOURNE, LT Lamb, ordered, "Stop both engines." The order was acknowledged by the engine room (R, p. 170, 361).

130. (U) Shortly before the collision the JOOD EVANS, LT Hopson, ordered, "All back full." The order reached the engine room (R, p. 117, 401).

131. (U) Immediately before the collision CO MELBOURNE ordered, "Full astern both engines." The order reached the wheelhouse as the collision occurred (R, p. 170, 361).

132. (U) At approximately 0315G, the two ships came into collision at latitude 08°-59.2N, longitude 110°-47.7E (Exhibit 61).

Signals

133. (U) From the time of the "form column" signal until collision, the sequence of signals and their meaning was as follows:

   a. The transmission of the Formation ONE signal was made at approximately 0309G as follows:

      MELBOURNE  CHARLIE SIX THIS IS MIKE TWO - -
                 EXECUTE TO FOLLOW FORMATION ONE - -
                 CALL SIGN WHISKEY TWO CALL SIGN
                 JULIET SEVEN - - JULIET SEVEN OVER

      EVANS  JULIET SEVEN ROGER OUT

      The correct translation of this signal is

      MELBOURNE  TU 472.1.0 from CTU 472.1.0 form column at standard distance in
                 the sequence MELBOURNE, EVANS. EVANS over.

      EVANS  EVANS - Roger out

   b. The next transmission was made at approximately 0310G as follows:

      MELBOURNE  TU 472.1.0 from CTU 472.1.0 execute all unexecuted signals. EVANS
                 over.

      EVANS  EVANS - Roger out

      (This has the effect of executing the signal at a)

   c. The next transmission was made at approximately 0312G as follows:

      MELBOURNE  JULIET SEVEN THIS IS MIKE TWO - -
                 MIKE CORPEN SHACKLE ZULU UNIFORM
                 UNIFORM LIMA UNSHACKLE - - TIME 2012
                 OVER

      EVANS  JULIET SEVEN ROGER OUT

      The correct translation of this signal is

      MELBOURNE  EVANS from CTU 472.1.0 my course is 260 time 2012Z over

      EVANS  EVANS - Roger out
354. (U) Death reports on all the personnel listed in Findings of Facts 350 and 353 shall be submitted on NAVJAG Form 5800/16 (Exhibit 34).

355. (U) As a result of the collision, the following named EVANS personnel suffered injuries which resulted in their inability to perform duty for a period exceeding 24 hours:

MACAYAN, Florentino F., BTCS, 455 11 02

BAUGHMAN, Terry L., FN, 852 18 25

LOCKWOD, Robert E., FN, 821 13 26

PEACOCK, Michael W., FA, 863 44 81

RIGGINS, Roy E., MM, 850 37 61

RODRIGUES, Marcus (n), Jr., SA, B86 81 74

356. (U) There were no personnel casualties in MELBOURNE as a result of the collision (Exhibit 47).