POSTLAUNCH REPORT
FOR
MERCURY-REDSTONE NO. 3
(MR-3)

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
SPACE TASK GROUP
Langley Field, Va.
June 16, 1961
POSTLAUNCH REPORT FOR MERCURY-REDSTONE NO. 3
(MR-3)

NASA Project Mercury Working Paper No. 192

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
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FIGURE 7.3-2 PILOT VOICE COMMUNICATIONS DURING MR-3 FLIGHT

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>TIME MIN:SEC</th>
<th>DURATION SECONDS</th>
<th>VOICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>00:02.3</td>
<td>3</td>
<td>Ahh, Roger; lift-off and the clock is started</td>
</tr>
<tr>
<td>2</td>
<td>00:08.3</td>
<td>2</td>
<td>Yes sir, reading you loud and clear</td>
</tr>
<tr>
<td>3</td>
<td>00:25.5</td>
<td>8.5</td>
<td>This is Freedom Seven. The fuel is go, 1.2 g, cabin at 14 psi, oxygen is go</td>
</tr>
<tr>
<td>4</td>
<td>00:48.5</td>
<td>2.5</td>
<td>Freedom Seven is still go</td>
</tr>
<tr>
<td>5</td>
<td>00:58.5</td>
<td>8.5</td>
<td>This is Seven. Fuel is go, 1.8 g, 8 psi cabin, and the oxygen is go</td>
</tr>
<tr>
<td>6</td>
<td>01:21.5</td>
<td>2.6</td>
<td>Cabin pressure is holding at 5.5. Cabin holding at 5.5</td>
</tr>
<tr>
<td>7</td>
<td>01:33</td>
<td>10</td>
<td>Fuel is go, 2.5 g, cabin 5.5, oxygen is go, the main bus 24, and the isolated battery is 29</td>
</tr>
<tr>
<td>8</td>
<td>01:50.5</td>
<td>3</td>
<td>Okay, it's a lot smoother now. A lot smoother</td>
</tr>
<tr>
<td>9</td>
<td>02:01</td>
<td>9</td>
<td>Seven here. Fuel is go, 4 g, 5.5 cabin, oxygen go, all systems go</td>
</tr>
<tr>
<td>10</td>
<td>02:15</td>
<td>1.5</td>
<td>5 g</td>
</tr>
<tr>
<td>11</td>
<td>02:22</td>
<td>2.5</td>
<td>Cut-off. Tower jettison green</td>
</tr>
<tr>
<td>12</td>
<td>02:27.5</td>
<td>1.5</td>
<td>Disarm</td>
</tr>
<tr>
<td>13</td>
<td>02:32.5</td>
<td>2</td>
<td>Capsule separation is green</td>
</tr>
<tr>
<td>14</td>
<td>02:35.5</td>
<td>6</td>
<td>Periscope is coming out and the turn-around has started</td>
</tr>
<tr>
<td>15</td>
<td>02:50</td>
<td>3</td>
<td>ASCS is okay</td>
</tr>
<tr>
<td>16</td>
<td>02:53.5</td>
<td>2.5</td>
<td>Control movements</td>
</tr>
</tbody>
</table>
FIGURE 7.3-2 (Cont'd)

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>TIME MIN:SEC</th>
<th>DURATION SECONDS</th>
<th>VOICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>03:04</td>
<td>4.5</td>
<td>Okay, switching to manual pitch</td>
</tr>
<tr>
<td>18</td>
<td>03:21</td>
<td>2.5</td>
<td>Pitch is okay</td>
</tr>
<tr>
<td>19</td>
<td>03:24</td>
<td>4.5</td>
<td>Switching to manual yaw</td>
</tr>
<tr>
<td>20</td>
<td>03:42</td>
<td>5</td>
<td>Yaw is okay. Switching to manual roll</td>
</tr>
<tr>
<td>21</td>
<td>03:55.5</td>
<td>2.5</td>
<td>Roll is okay</td>
</tr>
<tr>
<td>22</td>
<td>03:59.5</td>
<td>4.5</td>
<td>On the periscope. What a beautiful view</td>
</tr>
<tr>
<td>23</td>
<td>04:05.5</td>
<td>9.5</td>
<td>Cloud cover over Florida. 3 to 4 tenths near the eastern coast. Obscured up to Hatteras</td>
</tr>
<tr>
<td>24</td>
<td>04:20.5</td>
<td>8.5</td>
<td>I can see Okeechobee. Identify Andros Island Identify the Reefs</td>
</tr>
<tr>
<td>25</td>
<td>04:44.5</td>
<td>4</td>
<td>Start retro-sequence. Retro-attitude on green</td>
</tr>
<tr>
<td>26</td>
<td>04:56.5</td>
<td>2.5</td>
<td>Control is smooth</td>
</tr>
<tr>
<td>27</td>
<td>05:13</td>
<td>3</td>
<td>Retro one, very smooth</td>
</tr>
<tr>
<td>28</td>
<td>05:16.5</td>
<td>1.5</td>
<td>Retro two</td>
</tr>
<tr>
<td>29</td>
<td>05:23.5</td>
<td>2.5</td>
<td>Retro three</td>
</tr>
<tr>
<td>30</td>
<td>05:31</td>
<td>2.5</td>
<td>All three retros are fired</td>
</tr>
<tr>
<td>31</td>
<td>05:35</td>
<td>6</td>
<td>Okay. Three retros have fired. Retro-jettison is back to arm.</td>
</tr>
<tr>
<td>32</td>
<td>05:45.5</td>
<td>1.5</td>
<td>Negative</td>
</tr>
<tr>
<td>33</td>
<td>05:55</td>
<td>3</td>
<td>Switching to fly-by-wire</td>
</tr>
<tr>
<td>34</td>
<td>06:11</td>
<td>2.5</td>
<td>Roll is okay</td>
</tr>
</tbody>
</table>
FIGURE 7.3-2 (Cont'd)

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>TIME MIN:SEC</th>
<th>DURATION SECONDS</th>
<th>VOICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>06:16.5</td>
<td>4.5</td>
<td>Roger; do not have a light</td>
</tr>
<tr>
<td>36</td>
<td>06:25</td>
<td>6</td>
<td>I do not have a light. I see the straps falling away. I heard a noise. I will use override</td>
</tr>
<tr>
<td>37</td>
<td>06:30.5</td>
<td>3</td>
<td>Override used, the light is green</td>
</tr>
<tr>
<td>38</td>
<td>06:36.5</td>
<td>2</td>
<td>Ahh, Roger</td>
</tr>
<tr>
<td>39</td>
<td>06:44.5</td>
<td>2</td>
<td>Periscope is retracting</td>
</tr>
<tr>
<td>40</td>
<td>06:49</td>
<td>4.5</td>
<td>I'm on FBW. Going to re-entry attitude</td>
</tr>
<tr>
<td>41</td>
<td>07:04.5</td>
<td>6</td>
<td>Okay, Buster. Re-entry attitude, switching to ASCS normal</td>
</tr>
<tr>
<td>42</td>
<td>07:14</td>
<td>2</td>
<td>ASCS is okay</td>
</tr>
<tr>
<td>43</td>
<td>07:25</td>
<td>3</td>
<td>Switching HF for radio check</td>
</tr>
<tr>
<td>44</td>
<td>07:39</td>
<td>Ahh, Roger, reading you loud and clear HF, Deke, How me?</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>07:48</td>
<td>Ahh, Reading you loud and clear HF, How me?</td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>08:04</td>
<td>3</td>
<td>Okay. This is Freedom Seven</td>
</tr>
<tr>
<td>47</td>
<td>08:10</td>
<td>7.5</td>
<td>&quot;G&quot; build-up 3, 6, 9</td>
</tr>
<tr>
<td>48</td>
<td>08:21</td>
<td>4</td>
<td>Okay - Okay</td>
</tr>
<tr>
<td>49</td>
<td>08:27.5</td>
<td>2</td>
<td>Okay</td>
</tr>
<tr>
<td>50</td>
<td>08:36.5</td>
<td>2</td>
<td>Okay</td>
</tr>
<tr>
<td>51</td>
<td>08:44</td>
<td>4</td>
<td>This is Seven - Okay</td>
</tr>
</tbody>
</table>

1HF was not received.
<table>
<thead>
<tr>
<th>NUMBER</th>
<th>TIME</th>
<th>DURATION</th>
<th>VOICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>52</td>
<td>08:51</td>
<td>3</td>
<td>45,000 feet now</td>
</tr>
<tr>
<td>53</td>
<td>08:56</td>
<td>1.5</td>
<td>40,000 feet</td>
</tr>
<tr>
<td>54</td>
<td>08:58</td>
<td>4</td>
<td>I'm back on ASCS</td>
</tr>
<tr>
<td>55</td>
<td>09:05</td>
<td>2</td>
<td>35,000 feet</td>
</tr>
<tr>
<td>56</td>
<td>09:14</td>
<td>2</td>
<td>30,000 feet</td>
</tr>
<tr>
<td>57</td>
<td>09:20</td>
<td>6</td>
<td>Ahh, Roger, Deke, reading you loud and clear. How me?</td>
</tr>
<tr>
<td>58</td>
<td>09:35</td>
<td>1</td>
<td>Ahh, Roger</td>
</tr>
<tr>
<td>59</td>
<td>09:39</td>
<td>6</td>
<td>The drogue is green at 21,000. The periscope is out. The drogue is out.</td>
</tr>
<tr>
<td>60</td>
<td>09:48</td>
<td>8</td>
<td>Okay at drogue deploy. I've got 70 percent auto - 90 percent manual. Oxygen is still okay</td>
</tr>
<tr>
<td>61</td>
<td>10:02</td>
<td>4</td>
<td>And the snorkels (out) at about 15,000 feet</td>
</tr>
<tr>
<td>62</td>
<td>10:06</td>
<td>2</td>
<td>Emergency flow rate is on</td>
</tr>
<tr>
<td>63</td>
<td>10:08</td>
<td>2</td>
<td>Standing by for main</td>
</tr>
<tr>
<td>64</td>
<td>10:15</td>
<td>2</td>
<td>Main on green</td>
</tr>
<tr>
<td>65</td>
<td>10:18</td>
<td>2</td>
<td>Main chute is reefed</td>
</tr>
<tr>
<td>66</td>
<td>10:22</td>
<td>4</td>
<td>Main chute is green. Main chute is coming unreefed and it looks good</td>
</tr>
<tr>
<td>67</td>
<td>10:28</td>
<td>4</td>
<td>Main chute is good. Rate of descent is reading about 35 ft/sec.</td>
</tr>
<tr>
<td>68</td>
<td>10:40</td>
<td>2</td>
<td>Hello Cap Com. Freedom Seven How do you read?</td>
</tr>
</tbody>
</table>
FIGURE 7.3-2 (Cont'd)

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<th>NUMBER</th>
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<th>DURATION</th>
<th>VOICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>69</td>
<td>10:55</td>
<td>3</td>
<td>Hello CARDFILE 23, this is Freedom Seven. Do you read?</td>
</tr>
<tr>
<td>70</td>
<td>11:03</td>
<td>14</td>
<td>Affirmative Indian Cap Com, let me give you a report. I'm at 7,000 feet, the main chute is good, the landing bag is on green, my peroxide has dumped, my condition is good</td>
</tr>
<tr>
<td>71</td>
<td>11:29</td>
<td>2</td>
<td>That is affirmative -- please relay</td>
</tr>
<tr>
<td>72</td>
<td>12:36</td>
<td>3</td>
<td>Hello CARDFILE 23, CARDFILE 23, Freedom Seven. Over.</td>
</tr>
<tr>
<td>73</td>
<td>12:49</td>
<td>13</td>
<td>Ahh, this is Seven. Relay back to Cap Com please. My altitude now 4,000 feet, condition as before, the main chute is good, the landing bag has deployed, the peroxide has dumped</td>
</tr>
<tr>
<td>74</td>
<td>14:03</td>
<td>3</td>
<td>Ahh, CARDFILE 23, Freedom Seven</td>
</tr>
<tr>
<td>75</td>
<td>14:09</td>
<td>5</td>
<td>I'm about 1,500 feet now. The main chute still looks good. The rate of descent is indicating 30 ft/sec.</td>
</tr>
<tr>
<td>76</td>
<td>14:52</td>
<td>1</td>
<td>Ahh, Roger</td>
</tr>
<tr>
<td>77</td>
<td>14:59</td>
<td>3</td>
<td>This is Seven. Go ahead</td>
</tr>
<tr>
<td>78</td>
<td>15:05</td>
<td>4</td>
<td>Negative. Just relaying my condition is still good. I'm getting ready for impact</td>
</tr>
<tr>
<td>15:22</td>
<td></td>
<td></td>
<td>(Landing)</td>
</tr>
</tbody>
</table>