

TABLE VIII: Operator Authority Limits

| start state | expected next-state | actual next-state | dangerous scenarios |
|-------------|--|-------------------|---------------------|
| Following | Speed.Control | Standby | 7, 8 |
| | | Following | 5, 6, 7, 8 |
| | | Override | 7, 8 |
| | | Hold | 7, 8 |
| | Standby Following Override Hold | Speed.Control | 5, 6 |
| | | | 1, 2, 3, 4, 5, 6 |
| | | | 5, 6 |
| | | | 3, 4 |

TABLE IX: Inconsistent Behavior

| start-state | expected next-state | actual next-state | dangerous scenarios |
|---------------|---------------------|-------------------|---------------------|
| Following | Standby | Error | None |
| Following | Error | Standby | None |
| Following | Error | Speed.Control | None |
| Following | Hold | Following | None |
| Following | Override | Error | None |
| Following | Following | Error | 1, 2, 3, 4 |
| Following | Off | Error | None |
| Following | Error | Hold | None |
| Following | Speed.Control | Error | 7, 8 |
| Following | Following | Hold | None |
| Following | Error | Override | None |
| Following | Error | Following | None |
| Following | Error | Off | None |
| Following | Hold | Error | 3, 4 |
| Speed.Control | Standby | Error | None |
| Speed.Control | Error | Standby | None |
| Speed.Control | Following | Speed.Control | 1, 2, 3, 4, 5, 6 |
| Speed.Control | Following | Override | None |
| Speed.Control | Following | Standby | 1, 2, 3, 4 |
| Speed.Control | Error | Following | None |
| Speed.Control | Off | Error | None |
| Speed.Control | Override | Error | None |
| Speed.Control | Error | Speed.Control | None |
| Speed.Control | Speed.Control | Following | 5, 6, 7, 8 |
| Speed.Control | Override | Following | 5, 6 |
| Speed.Control | Following | Error | 1, 2, 3, 4 |
| Speed.Control | Error | Override | None |
| Speed.Control | Standby | Following | 5, 6 |
| Speed.Control | Error | Off | None |
| Speed.Control | Speed.Control | Error | 7, 8 |
| Override | Error | Off | None |
| Override | Off | Error | None |
| Override | Error | Override | None |
| Override | Following | Error | 1, 2, 3, 4 |
| Override | Speed.Control | Error | 7, 8 |
| Override | Override | Error | None |
| Override | Error | Following | None |
| Override | Error | Speed.Control | None |

TABLE X: Nondeterminism

| start state | expected next-state | actual next-state | dangerous scenarios |
|-------------|---------------------|-------------------|---------------------|
| Standby | Speed_Control | Following | 5, 6, 7, 8 |
| Standby | Following | Speed_Control | 1, 2, 3, 4, 5, 6 |
| Override | Speed_Control | Following | 5, 6, 7, 8 |
| Override | Following | Speed_Control | 1, 2, 3, 4, 5, 6 |
| Hold | Hold | Error | 3, 4 |
| Hold | Error | Hold | None |
| Hold | Speed_Control | Hold | 7, 8 |
| Hold | Hold | Speed_Control | 3, 4 |
| Hold | Following | Standby | 1, 2, 3, 4 |
| Hold | Standby | Following | 5, 6 |
| Hold | Following | Off | 1, 2, 3, 4 |
| Hold | Off | Following | 5, 6 |
| Hold | Following | Hold | None |
| Hold | Hold | Following | None |
| Hold | Following | Override | None |
| Hold | Override | Following | 5, 6 |
| Hold | Standby | Hold | None |
| Hold | Hold | Standby | 3, 4 |
| Hold | Standby | Off | None |
| Hold | Off | Standby | None |
| Hold | Override | Hold | None |
| Hold | Hold | Override | None |
| Hold | Following | Error | 1, 2, 3, 4 |
| Hold | Error | Following | None |
| Hold | Hold | Off | 3, 4 |
| Hold | Off | Hold | None |
| Hold | Speed_Control | Standby | 7, 8 |
| Hold | Standby | Speed_Control | 5, 6 |
| Hold | Off | Speed_Control | 5, 6 |
| Hold | Speed_Control | Off | 7, 8 |
| Hold | Standby | Error | None |
| Hold | Error | Standby | None |
| Hold | Speed_Control | Following | 5, 6, 7, 8 |
| Hold | Following | Speed_Control | 1, 2, 3, 4, 5, 6 |
| Hold | Standby | Override | None |
| Hold | Override | Standby | None |
| Hold | Speed_Control | Override | 7, 8 |
| Hold | Override | Speed_Control | 5, 6 |
| Hold | Error | Override | None |
| Hold | Override | Error | None |
| Hold | Override | Off | None |
| Hold | Off | Override | None |
| Hold | Off | Error | None |
| Hold | Error | Off | None |
| Hold | Speed_Control | Error | 7, 8 |
| Hold | Error | Speed_Control | None |

TABLE XI: Indirect Mode Changes

| start state | expected next-state | actual next-state | dangerous scenarios |
|---------------|---------------------|-------------------|---------------------|
| Following | Following | Error | 1, 2, 3, 4 |
| | Error | Following | None |
| | Hold | Following | None |
| | Following | Speed.Control | 1, 2, 3, 4, 5, 6 |
| | Following | Hold | None |
| | Speed.Control | Following | 5, 6, 7, 8 |
| Speed.Control | Speed.Control | Following | 5, 6, 7, 8 |
| | Following | Speed.Control | 1, 2, 3, 4, 5, 6 |
| | Speed.Control | Error | 7, 8 |
| | Error | Speed.Control | None |
| Hold | Hold | Standby | 3, 4 |
| | Standby | Hold | None |
| | Off | Hold | None |
| | Override | Hold | None |
| | Speed.Control | Hold | 7, 8 |
| | Following | Hold | None |
| | Error | Hold | None |
| | Hold | Off | 3, 4 |
| | Hold | Override | None |
| | Hold | Following | None |
| | Hold | Speed.Control | 3, 4 |
| | Hold | Error | 3, 4 |
| Override | Override | Error | None |
| | Error | Override | None |