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# 1 Aufnahmeprotokoll der Laserbefliegung

## 1.1 Aufnahmeprotokoll der Laserbefliegung: Flug 060915\_1

|                              |          |       |         |        |      |     |      |      |                  |
|------------------------------|----------|-------|---------|--------|------|-----|------|------|------------------|
| Flight Log                   |          |       |         |        |      |     |      |      |                  |
| -----                        |          |       |         |        |      |     |      |      |                  |
| Project Number: 060915_1_169 |          |       |         |        |      |     |      |      |                  |
| S/N : ALTM 3100 HD 72-2      |          |       |         |        |      |     |      |      |                  |
| Operator : Scherenschlich    |          |       |         |        |      |     |      |      |                  |
| Pilot(s) : Fiedler/Schulz    |          |       |         |        |      |     |      |      |                  |
| Aircraft : D-IDOS            |          |       |         |        |      |     |      |      |                  |
| Airport : EDDG               |          |       |         |        |      |     |      |      |                  |
| Mission : DMC_ELB            |          |       |         |        |      |     |      |      |                  |
| Wheels Up : 7:07             |          |       |         |        |      |     |      |      |                  |
| Flight Length : 1:56         |          |       |         |        |      |     |      |      |                  |
| HOBBS Start : 8:03           |          |       |         |        |      |     |      |      |                  |
| HOBBS End : 9:59             |          |       |         |        |      |     |      |      |                  |
| Weather                      |          |       |         |        |      |     |      |      |                  |
| -----                        |          |       |         |        |      |     |      |      |                  |
| Date : September 15, 2006    |          |       |         |        |      |     |      |      |                  |
| Julian Day : 258             |          |       |         |        |      |     |      |      |                  |
| Temperature : +11 deg        |          |       |         |        |      |     |      |      |                  |
| Visibility : 60 km           |          |       |         |        |      |     |      |      |                  |
| Clouds : CAVOK               |          |       |         |        |      |     |      |      |                  |
| Precipitation : none         |          |       |         |        |      |     |      |      |                  |
| Wind Dir : 118 deg           |          |       |         |        |      |     |      |      |                  |
| Wind Speed : 12 kn           |          |       |         |        |      |     |      |      |                  |
| Pressure : 1012              |          |       |         |        |      |     |      |      |                  |
| Statistics                   |          |       |         |        |      |     |      |      |                  |
| -----                        |          |       |         |        |      |     |      |      |                  |
| Laser Time : 01:27:03        |          |       |         |        |      |     |      |      |                  |
| -----                        |          |       |         |        |      |     |      |      |                  |
| Start                        | Stop     | Strip | Alt (m) | Hdg    | PDOP | SVs | PRF  | Freq | Angle            |
| 06:57:42                     | 06:58:04 | XX    | 89      | 179.75 | 2.0  | 7   | 33.0 | 40.0 | 20.0             |
| 07:11:24                     | 07:13:19 | XX    | 917     | 179.75 | 2.0  | 7   | 33.0 | 19.0 | 18.0             |
| 07:48:03                     | 07:48:21 | XX    | 2485    | 299.00 | 2.0  | 7   | 33.0 | 19.0 | 18.0             |
| 07:52:10                     | 07:53:21 | XX    | 2493    | 299.00 | 2.0  | 7   | 33.0 | 19.0 | 18.0             |
| 07:57:07                     | 07:59:05 | XX    | 2459    | 299.00 | 1.7  | 8   | 33.0 | 19.0 | 18.0             |
| 08:03:36                     | 08:09:36 | 56    | 2497    | 299.00 | 1.7  | 8   | 33.0 | 19.0 | 18.0 cross strip |
| 08:12:52                     | 08:15:24 | 38    | 2498    | 29.00  | 2.3  | 7   | 33.0 | 19.0 | 18.0             |
| 08:17:42                     | 08:19:52 | 39    | 2507    | 209.00 | 2.4  | 7   | 33.0 | 19.0 | 18.0             |
| 08:21:19                     | 08:27:04 | 40    | 2505    | 29.00  | 2.5  | 7   | 33.0 | 19.0 | 18.0             |
| 08:29:27                     | 08:36:23 | 32    | 2503    | 209.00 | 2.4  | 8   | 33.0 | 19.0 | 18.0             |
| 08:37:45                     | 08:44:59 | 33    | 2502    | 29.00  | 2.5  | 8   | 33.0 | 19.0 | 18.0             |
| 08:45:57                     | 08:52:48 | 34    | 2507    | 209.00 | 2.5  | 8   | 33.0 | 19.0 | 18.0             |
| 08:54:09                     | 09:00:20 | 35    | 2510    | 29.00  | 2.4  | 8   | 33.0 | 19.0 | 18.0             |
| 09:04:57                     | 09:09:30 | 58    | 2517    | 110.00 | 2.2  | 8   | 33.0 | 19.0 | 18.0 cross strip |
| 09:10:54                     | 09:15:55 | 37    | 2510    | 209.00 | 1.9  | 9   | 33.0 | 19.0 | 18.0             |
| 09:18:16                     | 09:24:07 | 36    | 2514    | 29.00  | 1.8  | 9   | 33.0 | 19.0 | 18.0             |
| 09:31:02                     | 09:34:44 | 41    | 2507    | 285.00 | 1.4  | 10  | 33.0 | 19.0 | 18.0             |
| 09:36:16                     | 09:41:31 | 57    | 2518    | 195.00 | 1.4  | 10  | 33.0 | 19.0 | 18.0 cross strip |
| 09:43:44                     | 09:48:02 | 47    | 2509    | 285.00 | 1.4  | 10  | 33.0 | 19.0 | 18.0             |
| 09:49:35                     | 09:59:36 | 46    | 2509    | 105.00 | 1.6  | 8   | 33.0 | 19.0 | 18.0             |
| -----                        |          |       |         |        |      |     |      |      |                  |
| Comments                     |          |       |         |        |      |     |      |      |                  |
| -----                        |          |       |         |        |      |     |      |      |                  |

## 1.2 Aufnahmeprotokoll der Laserbefliegung: Flug 060915\_2

Flight Log

---

Project Number: 060915\_2\_169  
S/N : ALTM 3100 HD 72-2  
Operator : Scherenschlich  
Pilot(s) : Fiedler/Schulz  
Aircraft : D-IDOS  
Airport : EDWB  
Mission : DMC-ELB  
Wheels Up : 13:09  
Flight Length : 2:59  
HOBBS Start : 13:25  
HOBBS End : 16:24

Weather

---

Date : September 15, 2006  
Julian Day : 258  
Temperature : 14 deg  
Visibility : 60 km  
Clouds : CAVOK  
Precipitation : none  
Wind Dir : 128 deg  
Wind Speed : 14 kn  
Pressure : 1011

Statistics

---

Laser Time : 01:59:32

| Start                         | Stop     | Strip | Alt(m) | Hdg    | PDOP | SVs | PRF  | Freq | Angle            |
|-------------------------------|----------|-------|--------|--------|------|-----|------|------|------------------|
| 13:13:05                      | 13:14:20 | XX    | 766    | 285.00 | 1.8  | 8   | 33.0 | 19.0 | 18.0             |
| 13:20:59                      | 13:21:18 | XX    | 2507   | 15.00  | 1.9  | 8   | 33.0 | 19.0 | 18.0             |
| 13:25:56                      | 13:30:07 | 57    | 2510   | 15.00  | 2.5  | 7   | 33.0 | 19.0 | 18.0 cross strip |
| 13:35:50                      | 13:55:20 | 42    | 2507   | 105.00 | 2.1  | 8   | 33.0 | 19.0 | 18.0 Str. 43     |
| enthalten Laser durchgelaufen |          |       |        |        |      |     |      |      |                  |
| 13:57:24                      | 14:07:05 | 44    | 2501   | 105.00 | 2.2  | 9   | 33.0 | 19.0 | 18.0             |
| 14:09:09                      | 14:18:29 | 45    | 2511   | 285.00 | 1.6  | 9   | 33.0 | 19.0 | 18.0             |
| 14:29:23                      | 14:33:36 | 59    | 2506   | 52.00  | 1.8  | 9   | 33.0 | 19.0 | 18.0 cross strip |
| 14:38:05                      | 14:43:52 | 48    | 2507   | 142.00 | 1.8  | 9   | 33.0 | 19.0 | 18.0             |
| 14:46:44                      | 14:53:38 | 49    | 2513   | 322.00 | 1.6  | 10  | 33.0 | 19.0 | 18.0             |
| 14:58:51                      | 15:07:26 | 50    | 2508   | 142.00 | 1.6  | 10  | 33.0 | 19.0 | 18.0             |
| 15:08:40                      | 15:17:02 | 51    | 2508   | 322.00 | 1.6  | 10  | 33.0 | 19.0 | 18.0             |
| 15:23:41                      | 15:24:51 | 12    | 1587   | 12.00  | 2.3  | 8   | 70.0 | 46.0 | 11.0 Streifen    |
| abgebrochen                   |          |       |        |        |      |     |      |      |                  |
| 15:28:10                      | 15:32:33 | 8     | 1592   | 102.00 | 2.3  | 8   | 70.0 | 46.0 | 11.0             |
| 15:33:38                      | 15:37:48 | 7     | 1597   | 282.00 | 2.2  | 8   | 70.0 | 46.0 | 11.0             |
| 15:39:30                      | 15:44:20 | 6     | 1596   | 102.00 | 2.1  | 8   | 70.0 | 46.0 | 11.0             |
| 15:45:27                      | 15:49:29 | 5     | 1598   | 282.00 | 2.0  | 8   | 70.0 | 46.0 | 11.0             |
| 15:51:09                      | 15:56:29 | 4     | 1607   | 102.00 | 1.9  | 8   | 70.0 | 46.0 | 11.0             |
| 15:57:13                      | 16:00:47 | 3     | 1595   | 282.00 | 2.1  | 7   | 70.0 | 46.0 | 11.0             |
| 16:02:32                      | 16:06:28 | 2     | 1591   | 102.00 | 2.1  | 7   | 70.0 | 46.0 | 11.0             |
| 16:08:07                      | 16:11:20 | 1     | 1585   | 282.00 | 2.0  | 7   | 70.0 | 46.0 | 11.0             |
| 16:13:03                      | 16:17:09 | 9     | 1581   | 102.00 | 2.6  | 6   | 70.0 | 46.0 | 11.0             |
| 16:18:58                      | 16:20:55 | 13    | 1586   | 12.00  | 2.4  | 6   | 70.0 | 46.0 | 11.0 cross strip |
| 16:22:44                      | 16:24:37 | 12    | 1582   | 192.00 | 1.9  | 7   | 70.0 | 46.0 | 11.0 cross strip |

Comments

### 1.3 Aufnahmeprotokoll der Laserbefliegung: Flug 060917\_1

| Flight Log                   |          |       |        |        |      |     |      |      |                  |
|------------------------------|----------|-------|--------|--------|------|-----|------|------|------------------|
| -----                        |          |       |        |        |      |     |      |      |                  |
| Project Number: 060917_1_169 |          |       |        |        |      |     |      |      |                  |
| S/N : ALTM 3100 HD 72-1      |          |       |        |        |      |     |      |      |                  |
| Operator : Scherenschlich    |          |       |        |        |      |     |      |      |                  |
| Pilot(s) : Fiedler           |          |       |        |        |      |     |      |      |                  |
| Aircraft : D-IDOS            |          |       |        |        |      |     |      |      |                  |
| Airport : EDWB               |          |       |        |        |      |     |      |      |                  |
| Mission : DMC-ELB            |          |       |        |        |      |     |      |      |                  |
| Wheels Up : 10:02            |          |       |        |        |      |     |      |      |                  |
| Flight Length : 4:19         |          |       |        |        |      |     |      |      |                  |
| HOBBS Start : 10:15          |          |       |        |        |      |     |      |      |                  |
| HOBBS End : 14:34            |          |       |        |        |      |     |      |      |                  |
| Weather                      |          |       |        |        |      |     |      |      |                  |
| -----                        |          |       |        |        |      |     |      |      |                  |
| Date : September 17, 2006    |          |       |        |        |      |     |      |      |                  |
| Julian Day : 260             |          |       |        |        |      |     |      |      |                  |
| Temperature : +12 deg        |          |       |        |        |      |     |      |      |                  |
| Visibility : 60 km           |          |       |        |        |      |     |      |      |                  |
| Clouds : CAVOK               |          |       |        |        |      |     |      |      |                  |
| Precipitation : none         |          |       |        |        |      |     |      |      |                  |
| Wind Dir : 180 deg           |          |       |        |        |      |     |      |      |                  |
| Wind Speed : 13 kn           |          |       |        |        |      |     |      |      |                  |
| Pressure : 1010              |          |       |        |        |      |     |      |      |                  |
| Statistics                   |          |       |        |        |      |     |      |      |                  |
| -----                        |          |       |        |        |      |     |      |      |                  |
| Laser Time : 02:31:22        |          |       |        |        |      |     |      |      |                  |
| -----                        |          |       |        |        |      |     |      |      |                  |
| Start                        | Stop     | Strip | Alt(m) | Hdg    | PDOP | SVs | PRF  | Freq | Angle            |
| -----                        |          |       |        |        |      |     |      |      |                  |
| 10:07:42                     | 10:07:54 | 1     | 1363   | 12.00  | 1.7  | 8   | 33.0 | 19.0 | 18.0             |
| 10:15:35                     | 10:25:09 | 56    | 2539   | 299.00 | 1.7  | 8   | 33.0 | 19.0 | 18.0 cross strip |
| 10:56:22                     | 11:01:59 | 6     | 2514   | 209.00 | 1.9  | 8   | 33.0 | 19.0 | 18.0             |
| 11:03:39                     | 11:10:26 | 7     | 2517   | 29.00  | 2.0  | 8   | 33.0 | 19.0 | 18.0             |
| 11:11:59                     | 11:18:16 | 8     | 2522   | 209.00 | 2.2  | 8   | 33.0 | 19.0 | 18.0             |
| 11:19:58                     | 11:26:37 | 9     | 2519   | 29.00  | 2.3  | 8   | 33.0 | 19.0 | 18.0             |
| 11:28:14                     | 11:35:04 | 10    | 2515   | 209.00 | 2.3  | 8   | 33.0 | 19.0 | 18.0             |
| 11:36:33                     | 11:43:24 | 11    | 2520   | 29.00  | 2.2  | 8   | 33.0 | 19.0 | 18.0             |
| 11:44:40                     | 11:51:09 | 12    | 2521   | 209.00 | 2.1  | 8   | 33.0 | 19.0 | 18.0             |
| 11:52:31                     | 11:59:15 | 13    | 2520   | 29.00  | 2.0  | 8   | 33.0 | 19.0 | 18.0             |
| 11:59:58                     | 12:06:07 | 14    | 2525   | 209.00 | 2.0  | 8   | 33.0 | 19.0 | 18.0             |
| 12:07:35                     | 12:13:05 | 15    | 2513   | 29.00  | 1.9  | 8   | 33.0 | 19.0 | 18.0             |
| 12:13:45                     | 12:18:44 | 57    | 2517   | 290.00 | 1.9  | 8   | 33.0 | 19.0 | 18.0 cross strip |
| 12:36:04                     | 12:39:30 | 53    | 2508   | 98.00  | 1.7  | 9   | 33.0 | 19.0 | 18.0             |
| 12:41:11                     | 12:44:40 | 54    | 2508   | 278.00 | 1.5  | 9   | 33.0 | 19.0 | 18.0             |
| 12:46:18                     | 12:49:49 | 55    | 2522   | 98.00  | 1.6  | 8   | 33.0 | 19.0 | 18.0             |
| 13:04:05                     | 13:07:52 | 29    | 2510   | 98.00  | 1.8  | 8   | 33.0 | 19.0 | 18.0             |
| 13:13:29                     | 13:19:37 | 28    | 2510   | 278.00 | 1.9  | 8   | 33.0 | 19.0 | 18.0             |
| 13:21:29                     | 13:28:26 | 27    | 2514   | 98.00  | 2.6  | 7   | 33.0 | 19.0 | 18.0             |
| 13:34:19                     | 13:37:13 | 60    | 2516   | 189.00 | 2.2  | 8   | 33.0 | 19.0 | 18.0 cross strip |
| 13:40:16                     | 13:47:09 | 52    | 2505   | 322.00 | 2.1  | 9   | 33.0 | 19.0 | 18.0             |
| 13:49:40                     | 13:58:32 | 23    | 2492   | 142.00 | 2.2  | 9   | 33.0 | 19.0 | 18.0             |
| 14:01:10                     | 14:09:56 | 24    | 2520   | 322.00 | 1.6  | 9   | 33.0 | 19.0 | 18.0             |
| 14:10:52                     | 14:19:29 | 25    | 2515   | 142.00 | 1.7  | 9   | 33.0 | 19.0 | 18.0             |
| 14:21:26                     | 14:28:18 | 26    | 2506   | 322.00 | 1.8  | 9   | 33.0 | 19.0 | 18.0             |
| 14:30:50                     | 14:34:31 | 59    | 2510   | 232.00 | 1.8  | 9   | 33.0 | 19.0 | 18.0 cross strip |
| -----                        |          |       |        |        |      |     |      |      |                  |
| Comments                     |          |       |        |        |      |     |      |      |                  |
| -----                        |          |       |        |        |      |     |      |      |                  |



## 1.4 Aufnahmeprotokoll der Laserbefliegung: Flug 060923\_1

Flight Log

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Project Number: 060923\_1\_169  
 S/N : 72-1  
 Operator : Vollstaedt, Lochthofen  
 Pilot(s) : Naumann  
 Aircraft : D-IDOS  
 Airport : EDDG  
 Mission : Aussenelbe mit DMC  
 Wheels Up : 07:18  
 Flight Length : 1:43  
 HOBBS Start : 08:00  
 HOBBS End : 09:43

Weather

---

Date : September 23, 2006  
 Julian Day : 266  
 Temperature : +12  
 Visibility : 10 km  
 Clouds : CAVOK  
 Precipitation : none  
 Wind Dir : 210  
 Wind Speed : 12  
 Pressure : 1015

Statistics

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Laser Time : 01:22:51

| Start    | Stop     | Strip | Alt (m) | Hdg    | PDOP | SVs | PRF  | Freq | Angle, |
|----------|----------|-------|---------|--------|------|-----|------|------|--------|
| 08:00:28 | 08:05:08 | 57    | 2527    | 15.00  | 2.4  | 8   | 33.0 | 19.0 | 18.0   |
| 08:09:03 | 08:17:37 | 16    | 2503    | 105.00 | 2.5  | 8   | 33.0 | 19.0 | 18.0   |
| 08:19:24 | 08:28:22 | 17    | 2504    | 285.00 | 2.5  | 8   | 33.0 | 19.0 | 18.0   |
| 08:29:42 | 08:38:44 | 43    | 2511    | 105.00 | 2.2  | 8   | 33.0 | 19.0 | 18.0   |
| 08:40:28 | 08:49:51 | 18    | 2514    | 285.00 | 1.9  | 9   | 33.0 | 19.0 | 18.0   |
| 08:51:14 | 09:01:32 | 19    | 2513    | 105.00 | 1.5  | 10  | 33.0 | 19.0 | 18.0   |
| 09:02:50 | 09:12:41 | 20    | 2511    | 285.00 | 1.4  | 10  | 33.0 | 19.0 | 18.0   |
| 09:13:56 | 09:25:24 | 21    | 2513    | 105.00 | 1.4  | 9   | 33.0 | 19.0 | 18.0   |
| 09:31:28 | 09:37:13 | 57    | 2501    | 195.00 | 1.7  | 8   | 33.0 | 19.0 | 18.0   |
| 09:38:41 | 09:43:23 | 22    | 2509    | 285.00 | 1.7  | 8   | 33.0 | 19.0 | 18.0   |

Comments

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08:05:23 GMT : 57 - Kontrollstreifen

## 2 Aufnahmeprotokoll der Luftbildbefliegung

### 2.1 Aufnahmeprotokoll der Luftbildbefliegung: Flug 060917\_1

| Flightreport                                                                                                                                                    |                                        |                                         |                                    | Hansa Luftbild<br>German Air Surveys<br>Sensorik und Photogrammetrie |         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------|------------------------------------|----------------------------------------------------------------------|---------|
| <b>Aircraft:</b> D-IDOS                                                                                                                                         | <b>Camera:</b> Intergraph DMC 01 Nr.27 |                                         | <b>Flight-No:</b> JS44/06          |                                                                      |         |
| <b>Pilot:</b> Fiedler                                                                                                                                           | <b>Objectiv:</b> Standard              |                                         | <b>Date of flight:</b> 17. Sep. 06 |                                                                      |         |
| <b>Navigator</b> Sträter                                                                                                                                        | <b>Focal length:</b> 120 mm            |                                         |                                    |                                                                      |         |
|                                                                                                                                                                 | <b>Mount:</b> T-AS                     |                                         |                                    |                                                                      |         |
| <b>CCNS-4</b> <input checked="" type="checkbox"/> <b>Aerocontrol:</b> <input checked="" type="checkbox"/> <b>Kinematic:</b> <input checked="" type="checkbox"/> |                                        |                                         |                                    |                                                                      |         |
| <b>Exp. time:</b> automatic                                                                                                                                     |                                        | <b>Diafragma:</b> automatic             |                                    | <b>FMC:</b> automatic                                                |         |
| <b>GSD:</b> 25 cm                                                                                                                                               |                                        | <b>Height:</b> 2500m over ground        |                                    |                                                                      |         |
| <b>Overlap appr.:</b> 60 %                                                                                                                                      |                                        | <b>Sidelap:</b> 30 %                    |                                    |                                                                      |         |
| <b>Projectnumber:</b> 76635                                                                                                                                     |                                        | <b>Projectname:</b> ALSS+DMC Aussenelbe |                                    |                                                                      |         |
| Time                                                                                                                                                            | Run                                    | Dir.                                    | Photonumbers                       | quantity                                                             | remarks |
| 12:16                                                                                                                                                           | 56                                     | 300                                     | 0048 - 0001                        | 48                                                                   |         |
|                                                                                                                                                                 | 5                                      | 015                                     | 0016 - 0001                        | 16                                                                   |         |
|                                                                                                                                                                 | 1                                      | 195                                     | 0001 - 0017                        | 17                                                                   |         |
|                                                                                                                                                                 | 2                                      | 015                                     | 0019 - 0001                        | 19                                                                   |         |
|                                                                                                                                                                 | 3                                      | 195                                     | 0001 - 0021                        | 21                                                                   |         |
|                                                                                                                                                                 | 4                                      | 015                                     | 0024 - 0001                        | 24                                                                   |         |
|                                                                                                                                                                 | 6                                      | 195                                     | 0001 - 0027                        | 27                                                                   |         |
|                                                                                                                                                                 | 7                                      | 015                                     | 0030 - 0001                        | 30                                                                   |         |
|                                                                                                                                                                 | 8                                      | 195                                     | 0001 - 0028                        | 28                                                                   |         |
|                                                                                                                                                                 | 9                                      | 015                                     | 0031 - 0001                        | 31                                                                   |         |
|                                                                                                                                                                 | 10                                     | 195                                     | 0001 - 0032                        | 32                                                                   |         |
|                                                                                                                                                                 | 11                                     | 015                                     | 0032 - 0001                        | 32                                                                   |         |
|                                                                                                                                                                 | 12                                     | 195                                     | 0001 - 0031                        | 31                                                                   |         |
|                                                                                                                                                                 | 13                                     | 015                                     | 0029 - 0001                        | 29                                                                   |         |
|                                                                                                                                                                 | 14                                     | 198                                     | 0001 - 0027                        | 27                                                                   |         |
|                                                                                                                                                                 | 15                                     | 015                                     | 0025 - 0001                        | 25                                                                   |         |
|                                                                                                                                                                 | 58                                     | 271                                     | 0001 - 0020                        | 20                                                                   |         |
| 14:52                                                                                                                                                           | 31                                     | 090                                     | 0001 - 0017                        | 17                                                                   |         |
|                                                                                                                                                                 | 30                                     | 270                                     | 0019 - 0001                        | 19                                                                   |         |
|                                                                                                                                                                 | 29                                     | 090                                     | 0001 - 0034                        | 34                                                                   |         |
|                                                                                                                                                                 | 28                                     | 270                                     | 0037 - 0001                        | 37                                                                   |         |
|                                                                                                                                                                 | 27                                     | 090                                     | 0001 - 0036                        | 36                                                                   |         |
|                                                                                                                                                                 | 60                                     | 180                                     | 0001 - 0011                        | 11                                                                   |         |
|                                                                                                                                                                 | 23                                     | 140                                     | 0001 - 0043                        | 43                                                                   |         |
|                                                                                                                                                                 | 24                                     | 310                                     | 0043 - 0001                        | 43                                                                   |         |
| <b>Weather</b> leicht dunstig<br>tlw. dunstig                                                                                                                   |                                        |                                         | <b>Remarks:</b>                    |                                                                      |         |
|                                                                                                                                                                 |                                        |                                         | <b>Signatur:</b>                   |                                                                      |         |

[illegible]

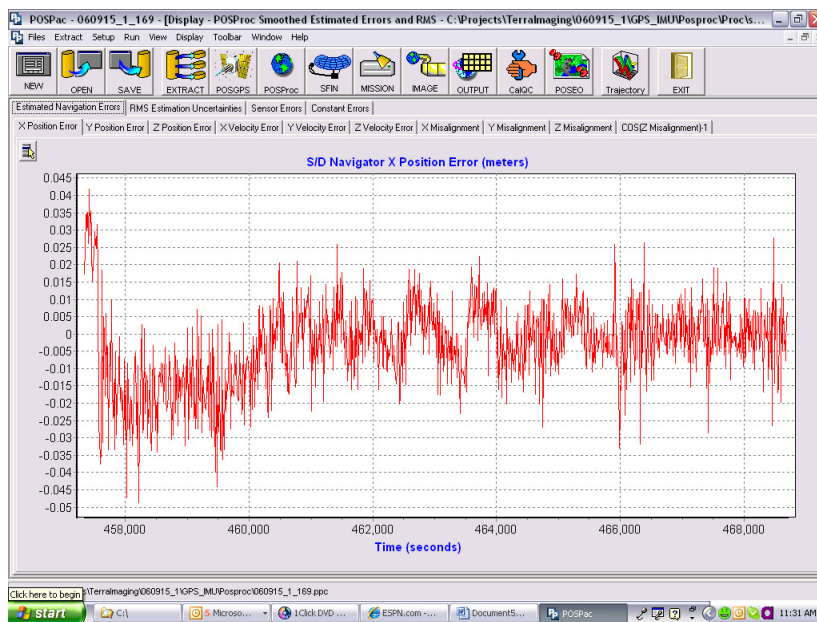
## 2.2 Aufnahmeprotokoll der Luftbildbefliegung: Flug 060923\_1

[illegible]

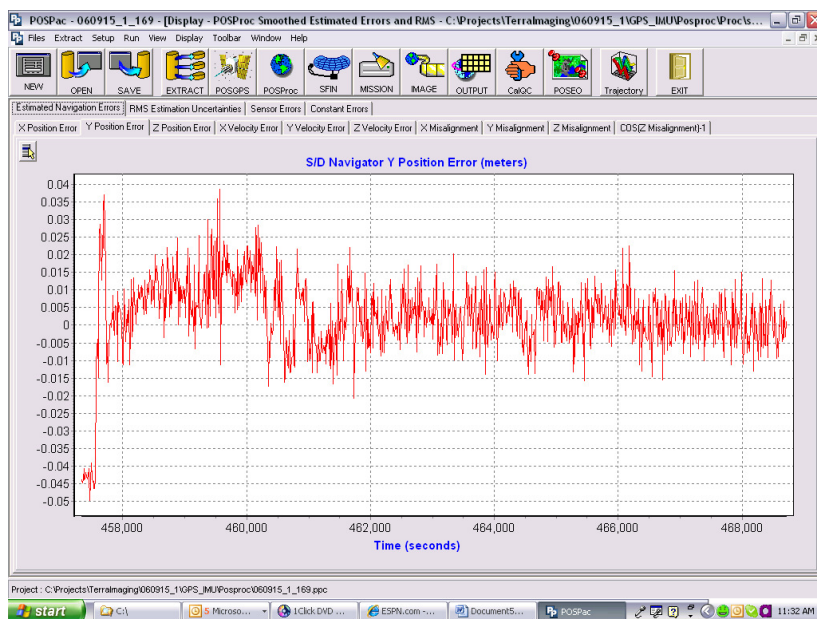
## 3 Fehlerschätzung der Flugbahnberechnung

### 3.1 Flug 060915\_1 (X, Y, Z)

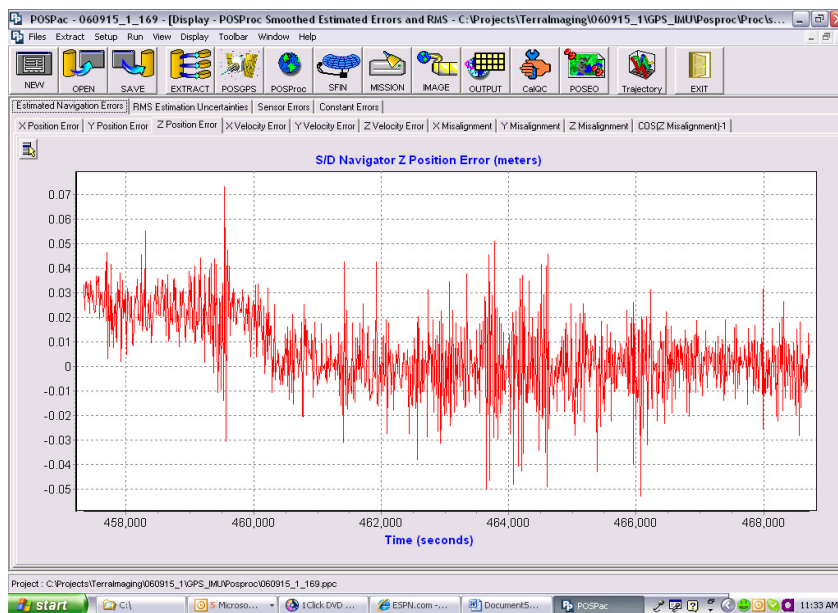
Geschätzte Fehlerwerte für x (in Metern):



Geschätzte Fehlerwerte für y (in Metern):

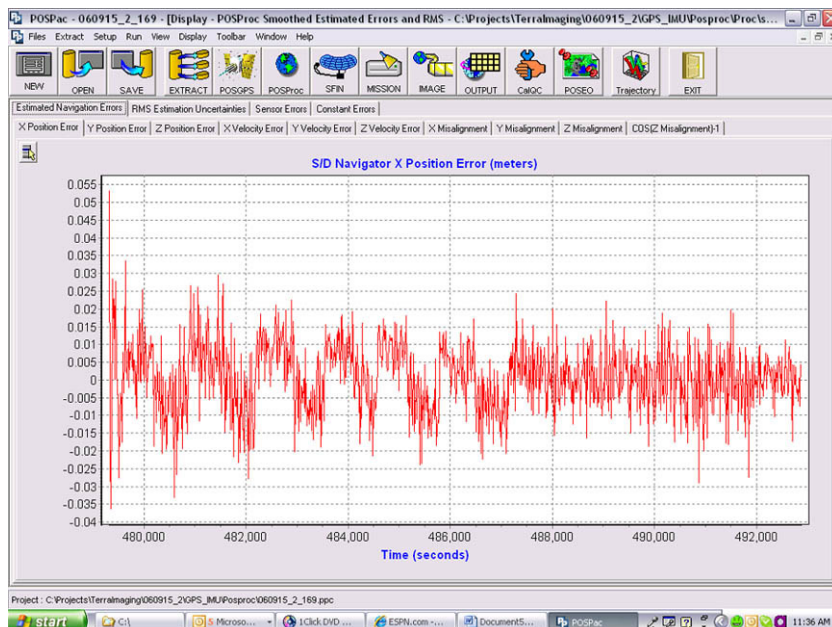


Geschätzte Fehlerwerte für z (in Metern):



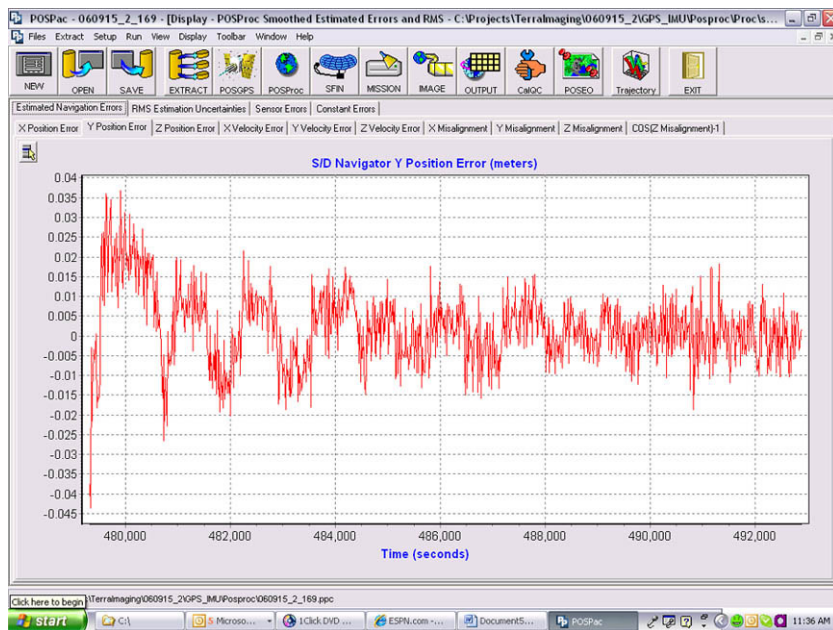
### 3.2 Flug 060915\_2 (X, Y, Z)

Geschätzte Fehlerwerte für x (in Metern):

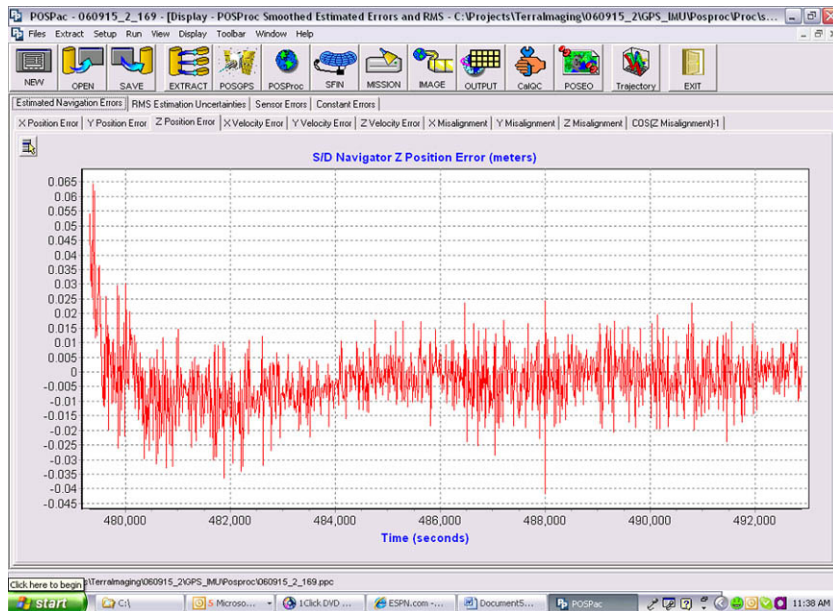




Geschätzte Fehlerwerte für y (in Metern):

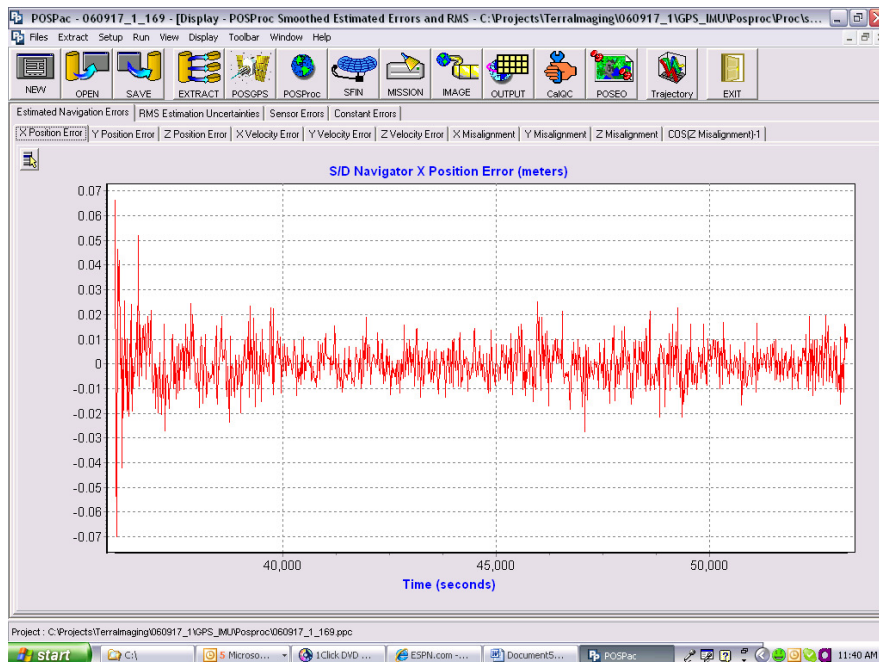


Geschätzte Fehlerwerte für z (in Metern):

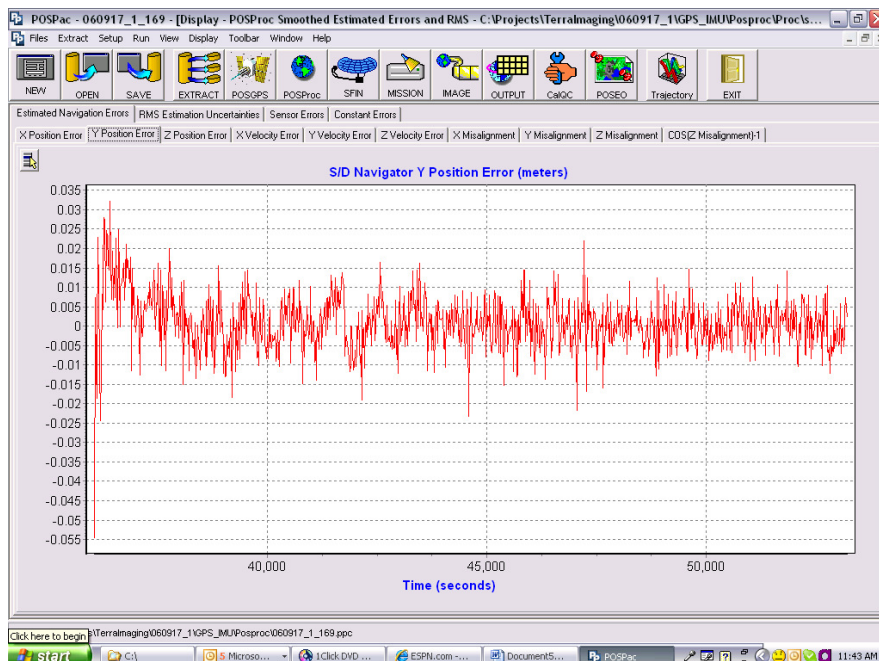


### 3.3 Flug 060917\_1 (X, Y, Z)

Geschätzte Fehlerwerte für x (in Metern):

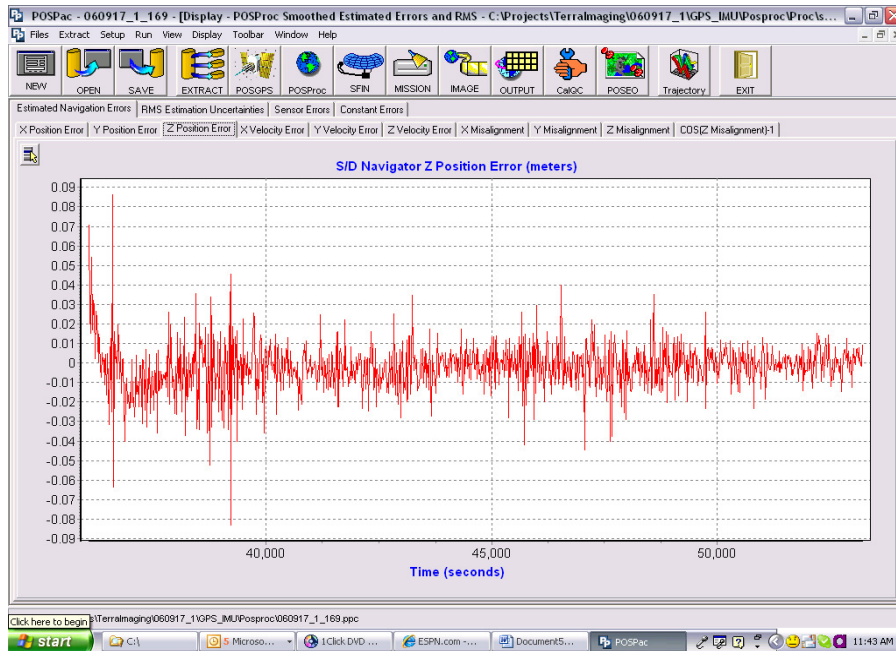


Geschätzte Fehlerwerte für y (in Metern):



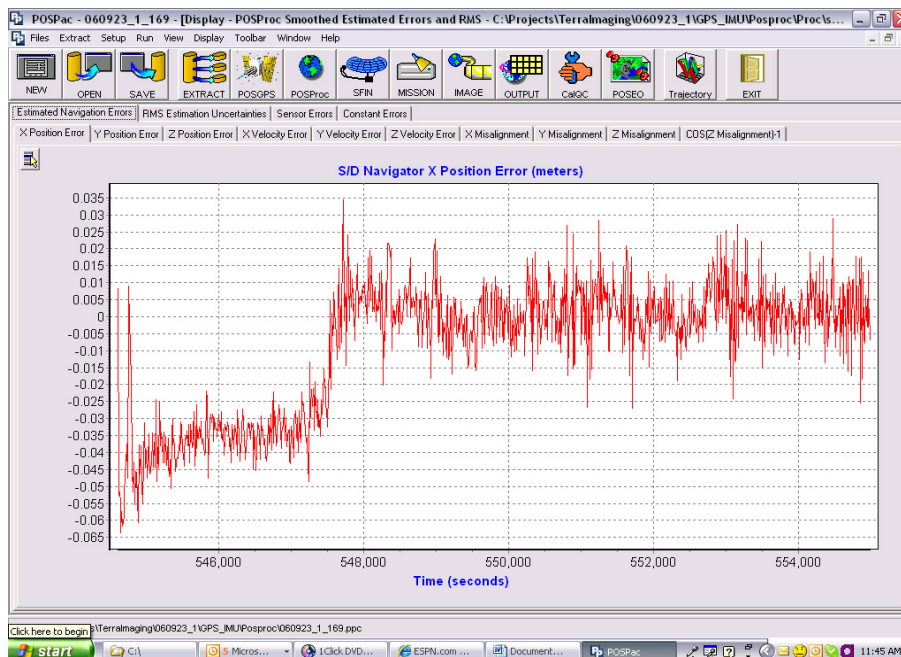


Geschätzte Fehlerwerte für z (in Metern):

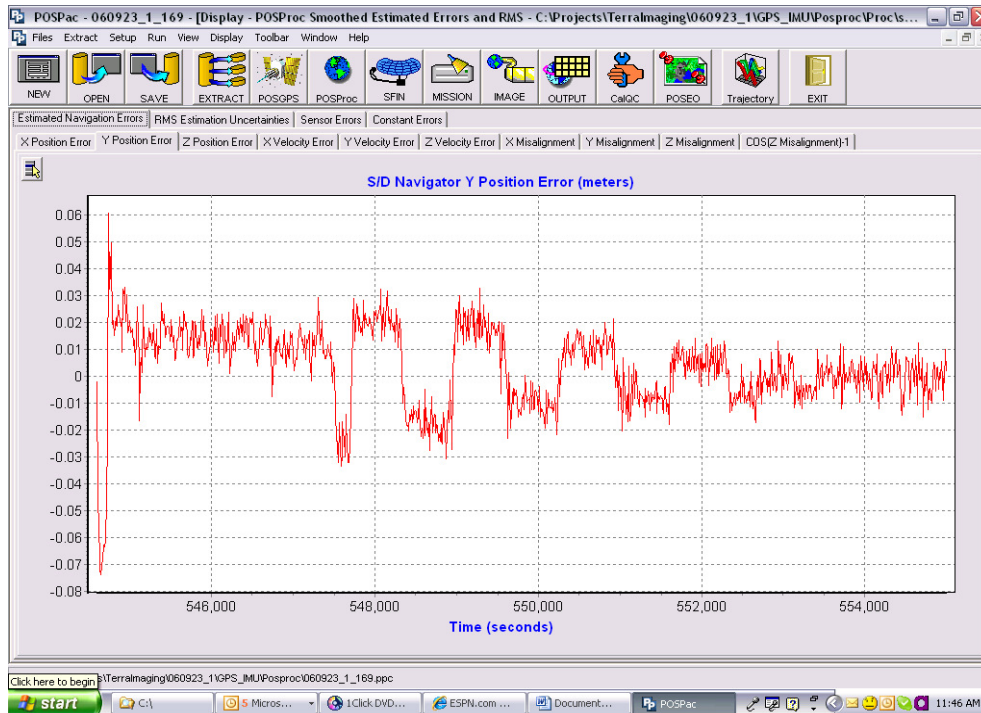


### 3.4 Flug 060923\_1 (X, Y, Z)

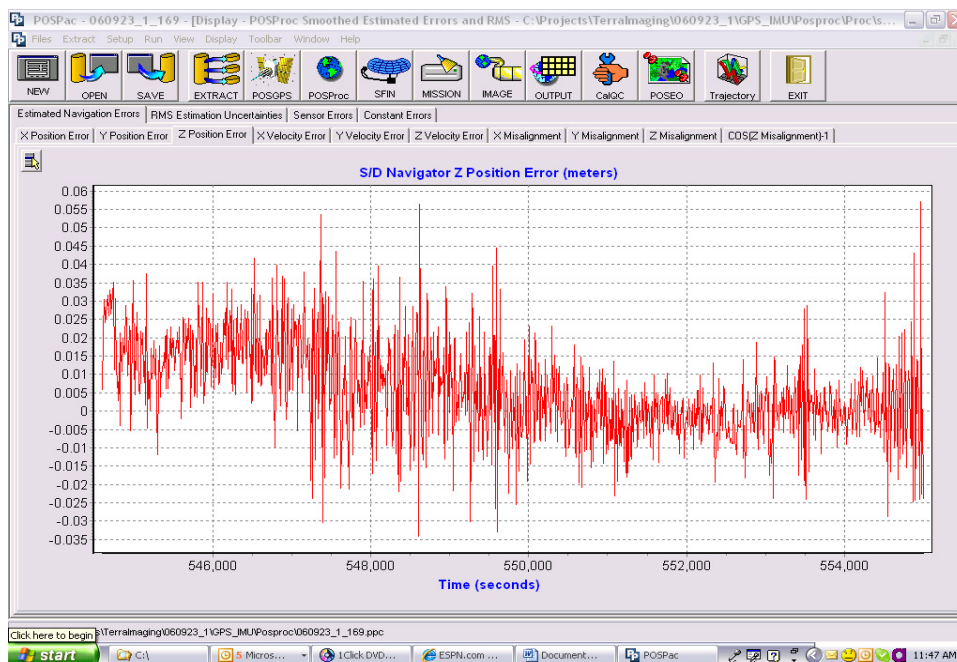
Geschätzte Fehlerwerte für x (in Metern):



Geschätzte Fehlerwerte für y (in Metern):



Geschätzte Fehlerwerte für z (in Metern):



## 4 Auszug aus dem Protokoll der Boresightberechnung

Die Auszüge des Protokolls der Boresightberechnung sind wie folgt zu verstehen:

Spalte 1: Passpunktnummer

Spalte 2: Hochwert des Passpunktes (UTM)

Spalte 3: Rechtswert des Passpunktes (UTM)

Spalte 4: Höhe des Passpunktes

Spalte 5: mittlerer Fehler aus den Messungen in benachbarten Bildern (Meter)

### 4.1 Bildflug 060917\_1

```
=====
tiepoints calculated with the boresight values
=====
++ 02011 5976049.40 467045.34 42.95 0.11
++ 02012 5975985.36 467117.54 42.49 0.15
++ 02013 5974103.51 466406.81 43.64 0.11
++ 02014 5974173.20 466358.59 45.50 0.09
++ 02015 5974020.37 467302.30 44.92 0.08
++ 02016 5974003.48 467291.00 43.92 0.09
++ 02017 5975135.27 467664.85 43.42 0.15
++ 02018 5975051.06 467594.98 46.32 0.16
++ 03001 5962488.08 490916.60 41.33 0.08
++ 03002 5963005.52 491220.43 42.04 0.07
++ 03003 5963488.54 491819.67 42.68 0.11
++ 03004 5963649.24 492303.72 42.12 0.06
++ 03005 5963192.28 492537.57 42.35 0.09
++ 03006 5962625.21 493217.66 42.88 0.06
++ 03007 5962273.57 493861.20 41.89 0.06
++ 03008 5961902.06 493521.95 42.62 0.04
++ 03009 5961033.12 493356.49 42.69 0.10
++ 03010 5961831.53 492049.99 43.07 0.07
++ 03011 5962169.79 491206.08 40.48 0.06
++ 04026 5983156.66 491167.63 42.42 0.07
++ 04001 5983095.70 491170.35 41.60 0.07
++ 04002 5982553.22 492661.50 41.91 0.12
++ 04003 5982558.34 492657.33 41.96 0.09
++ 04004 5984803.11 493539.32 43.24 0.10
++ 04005 5984800.33 493526.96 43.22 0.08
++ 04006 5985526.35 492478.21 42.40 0.07
++ 04007 5985528.76 492492.74 49.42 0.05
++ 04008 5984022.33 492350.22 47.12 0.10
++ 04009 5984016.80 492354.11 47.07 0.11
++ 04010 5985203.06 493071.19 44.18 0.11
++ 02020 5949104.77 537183.41 49.35 0.14
++ 02021 5949453.18 538263.56 43.71 0.07
++ 02022 5949444.67 538249.52 47.30 0.11
++ 02023 5951815.84 536843.84 46.05 0.09
++ 02024 5951690.19 536670.82 47.65 0.07
++ 02025 5951401.80 535829.70 43.77 0.13
++ 02026 5950347.79 537078.72 52.20 0.06
++ 02027 5951444.68 535845.46 43.42 0.16
++ 02001 5931353.93 551223.82 49.16 0.08
++ 02002 5931382.95 551255.98 44.36 0.09
++ 02003 5932425.98 548609.21 44.24 0.04
++ 02004 5932454.82 548629.93 46.49 0.03
++ 02005 5931076.45 548514.23 45.50 0.06
++ 02006 5931243.06 548606.28 48.39 0.07
++ 02007 5930928.40 551256.02 47.94 0.12
++ 02008 5930941.95 551263.37 47.85 0.13
++ 02009 5932064.78 551539.19 49.66 0.06
++ 02010 5932069.34 551538.35 49.70 0.04
++ 04012 5944886.45 532561.70 45.34 0.11
++ 04013 5945023.04 532589.79 52.96 0.10
```

```

++ 04015 5945612.91 533040.21 56.47 0.13
++ 04018 5946698.42 532349.81 47.32 0.04
++ 04019 5946719.32 532362.33 47.90 0.04
++ 04021 5947633.27 531105.94 49.27 0.09
++ 04022 5947608.42 531098.44 44.32 0.09
++ 04023 5947067.30 530644.38 40.54 0.06
++ 04024 5945650.82 531230.21 44.07 0.12
++ 04025 5945680.16 531259.89 48.75 0.09
++ 03012 5936724.74 549506.72 57.00 0.12
++ 03013 5936602.18 550426.83 66.39 0.13
++ 03016 5935284.74 550936.70 48.07 0.06
++ 03017 5934341.62 550717.96 43.36 0.08
++ 03018 5933355.86 550495.66 43.37 0.13
++ 03019 5933244.36 550223.70 42.91 0.14
++ 03020 5933253.88 550211.04 53.06 0.13
++ 03021 5934450.77 549027.20 42.85 0.06
++ 03022 5934340.81 548843.57 41.81 0.11
++ 04031 5923449.14 570267.85 51.40 0.06
++ 04032 5923369.16 570285.46 49.98 0.05
++ 04033 5924017.01 571096.40 49.81 0.04
++ 04034 5924034.03 571162.63 45.59 0.08
++ 04035 5926065.99 571566.23 45.29 0.16
++ 04036 5926007.75 571603.98 43.11 0.16
++ 04038 5926408.84 570308.64 46.85 0.14

```

## 4.2 Bildflug 060923\_1

```

=====
tiepoints calculated with the boresight values
=====

```

```

++ 01001 5971575.95 509905.52 56.91 0.09
++ 01002 5971637.68 509954.56 57.02 0.07
++ 01003 5972791.14 510490.07 42.48 0.05
++ 01004 5972825.96 510528.55 42.16 0.07
++ 01005 5973446.74 507832.49 44.53 0.08
++ 01006 5973372.52 507795.53 45.74 0.03
++ 01007 5972409.06 507837.49 49.41 0.05
++ 01012 5972464.28 507783.98 41.97 0.05
++ 01008 5973357.62 509286.59 52.25 0.04
++ 01009 5973432.04 509158.21 45.27 0.02
++ 01010 5971750.63 508978.82 46.20 0.11
++ 01011 5971740.28 508878.58 43.43 0.06
++ 01014 5961160.63 507408.90 53.45 0.06
++ 01015 5961185.02 507421.20 53.09 0.07
++ 01016 5961236.35 505005.38 45.81 0.07
++ 01017 5961246.71 505024.75 46.32 0.06
++ 01018 5962678.64 505109.32 42.06 0.08
++ 01019 5962736.01 505031.04 41.27 0.07
++ 01020 5961924.28 507221.64 47.56 0.07
++ 01021 5961928.51 507209.42 47.45 0.09
++ 01022 5960874.02 505417.22 43.63 0.06
++ 01023 5960885.23 505397.61 43.91 0.08

```



## 5 Ausschnitte aus dem Digitalen Luftbildmosaik

### 5.1 Ausschnitt Cuxhaven





## 5.2 Ausschnitt DASA-Gelände





## 6 Vergleich des Luftbildmosaiks mit Referenzvektoren



Abb.: C in GK3: 3.480.680 E 5.971.780 N (Cuxhaven)



Abb.: D in GK3: 3.564.350 E 5.935.451 N (Hamburg)



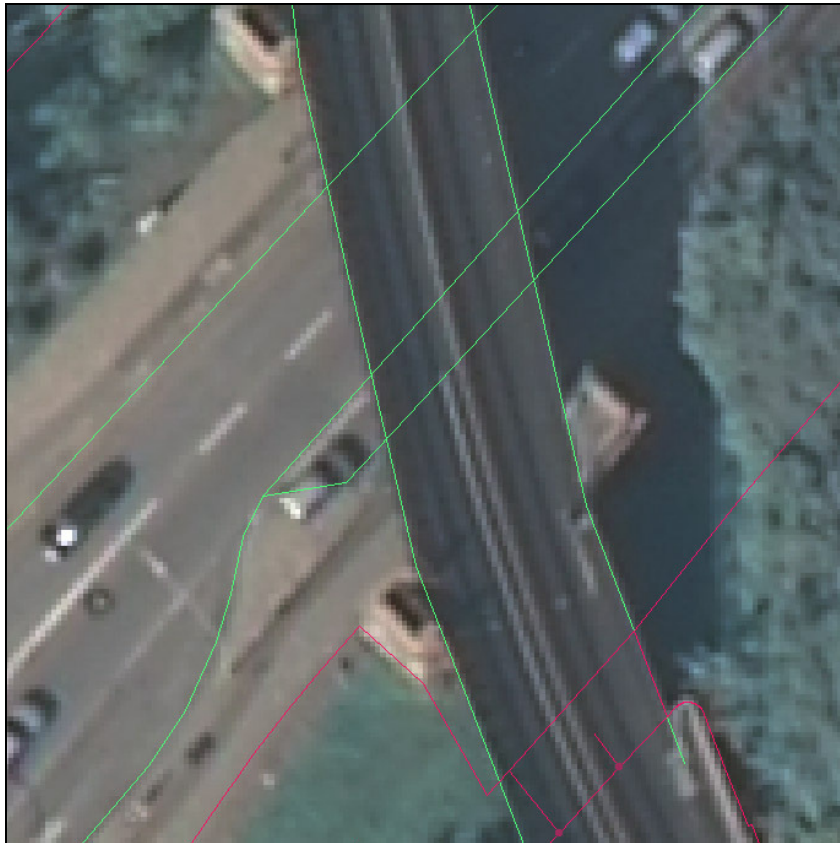


Abb.: E in GK3: 3.564.390 E 5.935.450 N (Hamburg)



Abb.: F in GK3: 3.531.550 E 5.954.430 N (Leuchttfeuer Insel Pagensand Nord)



*Abb.: G in GK3: 3.532.300 E 5.955.080 N (Region Pagensand)*