

BAB V PENUTUP

V.1 Kesimpulan

Berdasarkan penelitian yang telah dilakukan, dapat disimpulkan beberapa poin, diantaranya:

1. Sistem perancangan misi otomatis telah berhasil dirancang dan diimplementasikan menggunakan platform MATLAB dengan antarmuka pengguna grafis yang fungsional.
2. Implementasi Algoritma *Dijkstra* pada sistem ini terbukti dapat menemukan rute multi-titik yang paling optimal secara matematis, sesuai dengan hasil verifikasi terhadap perhitungan manual.
3. Validasi teknis secara berlapis membuktikan bahwa berkas rencana misi (.plan) yang dihasilkan oleh sistem dapat dieksekusi oleh wahana. Pengujian mengonfirmasi bahwa wahana mampu mengikuti jalur yang direncanakan, meskipun terdapat deviasi minor.

V.2 Saran

1. Dalam pengiriman ke multi-titik bukan hanya algoritma jalur terpendek yang diperlukan. Ada hal lain yang tidak kalah penting yaitu *Travel Salesman Problem* (TSP). Jadi bukan hanya bisa menentukan jalur terpendek antar titik, sistem dapat menentukan tujuan mana yang perlu dilewati terlebih dahulu.
2. Dalam sistem pengiriman, *drone* perlu sistem untuk menghindari rintangan. Baik rintangan statis ataupun dinamis. Sehingga dengan menambahkan *Obstacle Avoidance* sistem pengiriman menggunakan *drone* dapat lebih sempurna.

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LAMPIRAN

Lampiran 1 Daftar Responden Uji *User Friendly*

Pengujian GUI		
Sampel 1	Alfian	
Sampel 2	Ferese	
Sampel 3	Rais	
Sampel 4	Raji	
Sampel 5	Dardi	
Sampel 6	Ali	
Sampel 7	Irza	
Sampel 8	Satyo	
Sampel 9	Komet	
Sampel 10	Afifah	
Sampel 11	Anis	
Sampel 12	Firma	

Lampiran 2 Dokumentasi pengujian *drone*



Lampiran 3 Berkas (.plan)

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{
  "fileType": "Plan",
  "geoFence": {
    "circles": [
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    "polygons": [
      ],
    "version": 2
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  "groundStation": "QGGroundControl",
  "mission": {
    "cruiseSpeed": 50,
    "firmwareType": 12,
    "globalPlanAltitudeMode": 0,
    "hoverSpeed": 5,
    "items": [
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        "AMSLAltAboveTerrain": 25,
        "Altitude": 4,
        "AltitudeMode": 1,
        "autoContinue": true,
        "command": 16,
        "doJumpId": 1,
        "frame": 3,
        "params": [
          0,
          0,
          0,
          null,
          -6.8761926,
          107.6217247,
          4
        ]
      }
    ]
  }
}
```

```
    ],
    "type": "SimpleItem"
  },
  {
    "AMSLAltAboveTerrain": 25,
    "Altitude": 4,
    "AltitudeMode": 1,
    "autoContinue": true,
    "command": 16,
    "doJumpId": 2,
    "frame": 3,
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      0,
      0,
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      4
    ],
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    "Altitude": 4,
    "AltitudeMode": 1,
    "autoContinue": true,
    "command": 16,
    "doJumpId": 3,
    "frame": 3,
    "params": [
      0,
      0,
```

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    4  
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},  
{  
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  "AltitudeMode": 1,  
  "autoContinue": true,  
  "command": 19,  
  "doJumpId": 4,  
  "frame": 3,  
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    1  
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{  
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  "Altitude": 4,  
  "AltitudeMode": 1,  
  "autoContinue": true,  
  "command": 16,
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"doJumpId": 5,
"frame": 3,
"params": [
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  0,
  0,
  null,
  -6.8762647,
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  4
],
"type": "SimpleItem"
},
{
  "AMSLAltAboveTerrain": 25,
  "Altitude": 4,
  "AltitudeMode": 1,
  "autoContinue": true,
  "command": 16,
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  "frame": 3,
  "params": [
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    0,
    0,
    null,
    -6.8761926,
    107.6217247,
    4
  ],
  "type": "SimpleItem"
},
{
```

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        "frame": 3,  
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            0,  
            0,  
            null,  
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            107.6217247,  
            0  
        ],  
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    }  
],  
    "plannedHomePosition": [  
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        107.6217247,  
        796  
    ],  
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    "version": 2  
},  
"rallyPoints": {  
    "points": [  
    ],  
    "version": 2  
},  
"version": 1 }
```

Lampiran 5 Data Orientasi

Aktual			Simulasi		
<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>	<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>
-0.01439	0.012852	0.592644	-0.00159	0.003744	0.437905
-0.01441	0.012787	0.592591	-0.00137	0.003868	0.43754
-0.01447	0.01277	0.592573	-0.00109	0.004091	0.437812
-0.01451	0.012831	0.592626	-0.00154	0.00367	0.437946
-0.0145	0.012811	0.592656	-0.0015	0.003545	0.437939
-0.01453	0.012852	0.592788	-0.00127	0.003515	0.437639
-0.01458	0.012858	0.592986	-0.00113	0.003965	0.437547
-0.0146	0.012829	0.593079	-0.0016	0.003863	0.437179
-0.01456	0.012829	0.593062	-0.00194	0.004351	0.43744
-0.01453	0.012843	0.592995	-0.00188	0.004009	0.436881
-0.01444	0.012808	0.592901	-0.00185	0.003855	0.437012
-0.01449	0.012846	0.59283	-0.00146	0.004089	0.436949
-0.01449	0.012856	0.592755	-0.0014	0.003304	0.436726
-0.01445	0.012829	0.592658	-0.00168	0.003551	0.436359
-0.01445	0.012848	0.592646	-0.00206	0.003687	0.43668
-0.01443	0.0129	0.592704	-0.00232	0.003563	0.436286
-0.0144	0.012872	0.59274	-0.00259	0.003363	0.435867
-0.01436	0.012851	0.592718	-0.00253	0.003357	0.435971
-0.01436	0.012821	0.592624	-0.00227	0.003315	0.435754
-0.01438	0.01281	0.592516	-0.00247	0.002858	0.436053
-0.01432	0.012777	0.592368	-0.00252	0.002913	0.435954
-0.01433	0.012683	0.592268	-0.00256	0.002444	0.435879
-0.0143	0.012563	0.592193	-0.00248	0.002462	0.435579
-0.01428	0.01255	0.592177	-0.00263	0.002853	0.435399
-0.01425	0.012567	0.59223	-0.00231	0.002368	0.435554
-0.01419	0.012584	0.592281	-0.0023	0.001623	0.435594
-0.01417	0.012525	0.592365	-0.00221	0.001463	0.434671
-0.0141	0.012532	0.592404	-0.00241	0.001068	0.4348
-0.01402	0.012497	0.592437	-0.00264	0.001022	0.434509
-0.01397	0.012486	0.592393	-0.00258	0.001359	0.434369
-0.01397	0.012488	0.592332	-0.00238	0.001015	0.4348
-0.01392	0.012468	0.592289	-0.00255	0.000932	0.434971
-0.0139	0.012436	0.592273	-0.00229	0.000989	0.435221
-0.01383	0.012406	0.592314	-0.00249	0.000918	0.435338
-0.01378	0.012409	0.592325	-0.0021	0.000556	0.435545
-0.01377	0.012347	0.592306	-0.00207	0.000785	0.435642
-0.0138	0.012341	0.59229	-0.00195	0.001117	0.435839
-0.01388	0.012346	0.592187	-0.00235	0.001209	0.436166
-0.0139	0.012312	0.592096	-0.00236	0.0013	0.436038

Aktual			Simulasi		
<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>	<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>
-0.01388	0.012304	0.592088	-0.00212	0.001469	0.435925
-0.01384	0.012329	0.592073	-0.00164	0.001783	0.435834
-0.01384	0.012354	0.592024	-0.00173	0.001723	0.435798
-0.01377	0.012312	0.592093	-0.00105	0.00152	0.435888
-0.0137	0.012318	0.592231	-0.00097	0.001541	0.436116
-0.01372	0.012313	0.592356	-0.00061	0.001648	0.436093
-0.01367	0.012301	0.592457	-0.00032	0.00178	0.435909
-0.01364	0.01228	0.592526	-0.00027	0.001793	0.436173
-0.01365	0.012282	0.592541	-0.00052	0.001934	0.435782
-0.01366	0.012269	0.592571	-0.00033	0.001868	0.435519
-0.01366	0.012277	0.59262	5.50E-05	0.002189	0.435511
-0.01362	0.012267	0.592593	0.000167	0.002108	0.435497
-0.01357	0.012314	0.592685	0.000227	0.001958	0.4355
-0.0135	0.012351	0.592792	0.000248	0.002158	0.435585
-0.01347	0.012376	0.592898	0.000394	0.001703	0.435388
-0.01349	0.012349	0.592994	0.000113	0.001737	0.435209
-0.01346	0.012366	0.593036	-0.00031	0.002025	0.434924
-0.0134	0.012396	0.593064	-0.00022	0.002378	0.435051
-0.01341	0.0124	0.592987	-9.53E-05	0.002603	0.434691
-0.01338	0.012355	0.592917	-0.0001	0.003068	0.434973
-0.01335	0.012309	0.592841	0.000264	0.002937	0.435296
-0.01337	0.012299	0.59276	-0.00017	0.003036	0.435063
-0.01336	0.012282	0.592655	-0.00022	0.003274	0.434834
-0.01331	0.012271	0.592699	-0.00032	0.003317	0.435243
-0.01332	0.012265	0.592768	-1.83E-05	0.003611	0.4356
-0.01334	0.012257	0.59284	-0.00014	0.003355	0.435295
-0.01332	0.01224	0.592766	6.92E-05	0.003342	0.434929
-0.01328	0.012217	0.592708	-0.00053	0.003794	0.434687
-0.01321	0.012203	0.592737	-0.00028	0.0039	0.434279
-0.01317	0.012223	0.59343	-0.00056	0.003874	0.434363
-0.01311	0.012196	0.591838	-0.00044	0.003662	0.434311
-0.01314	0.012176	0.591103	0.000106	0.003997	0.434015
-0.01311	0.012152	0.590953	0.005204	0.007445	0.433798
-0.01317	0.012209	0.591343	0.009852	0.013698	0.433991
-0.0131	0.012065	0.591605	0.00992	0.014808	0.434403
-0.01306	0.01212	0.591413	0.006893	0.011778	0.434095
-0.01319	0.012085	0.590858	0.00231	0.006718	0.433941
-0.01309	0.012011	0.590488	-0.00055	0.003499	0.433661
-0.01311	0.012098	0.59008	-0.00171	0.001711	0.433896

Aktual			Simulasi		
<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>	<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>
-0.01292	0.01183	0.589773	-0.00271	0.001802	0.434119
-0.01274	0.011964	0.589312	-0.00302	0.001777	0.434635
-0.01241	0.011582	0.589142	-0.00336	0.002326	0.434515
-0.01247	0.011549	0.588281	-0.0043	0.00212	0.434433
-0.01192	0.011433	0.587416	-0.00422	0.001043	0.434401
-0.01199	0.011811	0.587515	-0.00356	0.000676	0.43468
-0.01177	0.011515	0.587186	-0.00295	0.000597	0.434881
-0.01106	0.010965	0.586887	-0.00246	0.000218	0.434923
-0.01089	0.01128	0.586504	-0.00197	0.000333	0.434792
-0.01043	0.01106	0.587014	-0.00157	1.91E-05	0.43441
-0.00892	0.010794	0.58748	-0.00104	-0.0004	0.434603
-0.00513	0.008915	0.584979	-0.00114	-0.0004	0.435224
0.00556	0.005063	0.576884	-0.00157	-0.00054	0.435101
0.043251	0.004742	0.579801	-0.00199	-0.00041	0.434929
0.102804	0.003597	0.576726	-0.00204	-0.0004	0.435221
0.151422	0.005803	0.558364	-0.00201	-0.00036	0.434933
0.155113	0.011514	0.475922	-0.001	-0.00043	0.435458
0.112122	0.011367	0.346181	-0.00067	0.000458	0.43564
0.060678	0.007532	0.237701	-0.00056	0.000529	0.438712
0.062209	0.002556	0.159924	-0.00126	0.001118	0.439649
0.024176	0.006622	0.112384	-0.00109	0.000446	0.439659
0.022452	0.04933	0.09164	-3.17E-05	3.68E-05	0.439273
0.018881	0.054477	0.094631	0.000634	0.000639	0.439026
0.011695	0.032049	0.114519	0.000325	0.00125	0.438443
0.010467	0.027925	0.142216	-0.00032	0.001749	0.438492
0.001585	0.040434	0.172999	0.000398	0.001821	0.438142
-0.00521	0.040215	0.20516	0.000668	0.000944	0.437709
-0.0022	0.037075	0.238639	0.00115	4.36E-05	0.43796
0.000991	0.040341	0.27404	0.001059	0.000534	0.43729
-0.00034	0.039135	0.308293	0.00058	0.00126	0.437292
0.008915	0.038855	0.340741	0.001132	0.001329	0.437887
0.010612	0.042092	0.373429	0.001002	0.00177	0.437888
0.002187	0.03889	0.406268	0.001452	0.001581	0.438302
-0.00098	0.024957	0.438257	0.001365	0.001626	0.437862
0.004805	0.013736	0.466901	0.000888	0.002108	0.437614
0.002314	0.015746	0.685952	0.000542	0.00197	0.436936
0.009483	0.011277	0.750567	-4.22E-05	0.0018	0.43632
0.006006	0.017778	0.80653	-0.00349	0.002	0.437144
-0.00192	0.018821	0.841411	-0.01417	0.025361	0.446982

Aktual			Simulasi		
<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>	<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>
-0.00827	0.01841	0.858851	-0.02148	0.07396	0.478251
-0.01135	0.014444	0.864428	-0.00927	0.125825	0.541494
-0.0051	3.64E-06	0.867388	0.018761	0.169717	0.636914
0.007429	0.009455	0.871745	0.057303	0.202462	0.75551
-0.01101	0.014442	0.869223	0.104152	0.22436	0.885942
-0.0122	0.014204	0.865011	0.158701	0.23406	1.017806
7.58E-05	0.001597	0.882239	0.216342	0.234679	1.14003
0.014002	0.06768	0.954247	0.264354	0.222583	1.245022
0.050449	0.132349	1.066837	0.290356	0.198557	1.331111
0.135286	0.146272	1.209334	0.289699	0.166101	1.40166
0.225865	0.140712	1.371928	0.275244	0.134866	1.462367
0.305792	0.09356	1.536471	0.25861	0.110446	1.521213
0.323105	0.044612	1.685597	0.238068	0.090878	1.582137
0.281849	0.014759	1.837555	0.204887	0.072314	1.647274
0.242236	-0.01761	1.976401	0.162231	0.053711	1.716906
0.175252	-0.00564	2.124096	0.1201	0.034673	1.791001
0.102619	0.014354	2.274837	0.08133	0.007428	1.868327
0.028125	0.008138	2.419875	0.050494	-0.02143	1.948843
0.023185	0.001515	2.569415	0.04487	-0.03187	2.028254
-0.00823	0.027874	2.712208	0.056235	-0.02794	2.105686
-0.02313	0.072029	2.864581	0.068735	-0.02123	2.182808
-0.00464	0.067533	3.019295	0.075114	-0.01926	2.259274
0.003984	0.08396	-3.10871	0.064925	-0.02036	2.335758
0.023548	0.093078	-2.95563	0.040664	-0.0124	2.412567
0.01975	0.105676	-2.81378	0.016944	0.002434	2.488906
0.019021	0.125908	-2.68467	0.009237	0.013171	2.565266
0.022109	0.12128	-2.5913	0.011279	0.011616	2.641858
0.046316	0.130384	-2.53482	0.011399	0.008082	2.718082
0.127973	0.157356	-2.45971	0.007215	0.007093	2.794596
0.183627	0.20435	-2.36341	0.003044	0.00956	2.871159
0.24305	0.233609	-2.25432	-0.00042	0.012716	2.947334
0.270773	0.207551	-2.14401	-0.00208	0.015678	3.022452
0.24779	0.145625	-2.03401	-0.00228	0.017662	3.097871
0.217087	0.087454	-1.91073	-0.00314	0.019522	-3.11009
0.153465	0.076158	-1.77238	-0.00366	0.021441	-3.03514
0.154578	0.024603	-1.6202	-0.00418	0.022524	-2.95997
0.196552	-0.01541	-1.46339	-0.00554	0.025264	-2.88468
0.224607	-0.05546	-1.30514	-0.00679	0.027169	-2.80903
0.166274	-0.07965	-1.15988	-0.00627	0.027783	-2.73313
0.087883	-0.07789	-1.01937	0.000644	0.028359	-2.65773
0.033229	-0.0766	-0.89132	0.031538	0.036645	-2.58262

Aktual			Simulasi		
<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>	<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>
-0.0015	-0.02271	-0.76674	0.081243	0.054651	-2.50637
-0.00774	0.009862	-0.63691	0.124158	0.081402	-2.4276
-0.01209	-0.00079	-0.50589	0.158859	0.110085	-2.34803
-0.01493	-0.01435	-0.36504	0.194677	0.131807	-2.26925
-0.0184	-0.01397	-0.25911	0.233215	0.143716	-2.19296
-0.0043	-0.01328	-0.2067	0.257086	0.134509	-2.12136
-0.00581	-0.01679	-0.19842	0.253252	0.102914	-2.05555
-0.00615	-0.01482	-0.21972	0.234278	0.064074	-1.9892
-0.00371	-0.02084	-0.25296	0.209229	0.033919	-1.91867
0.006406	-0.03689	-0.29728	0.179569	0.019145	-1.84178
0.020233	-0.03665	-0.34546	0.158559	0.004999	-1.76321
0.015022	-0.02192	-0.39052	0.17348	-0.02257	-1.68533
0.013975	0.036161	-0.42743	0.211025	-0.06297	-1.60954
-0.00625	0.101257	-0.45887	0.248406	-0.09496	-1.53406
-0.00758	0.116521	-0.47937	0.276236	-0.11692	-1.45658
0.016448	0.104983	-0.49954	0.274715	-0.13424	-1.37708
0.011098	0.111449	-0.51866	0.241508	-0.15117	-1.29875
0.017284	0.103918	-0.53247	0.193852	-0.16516	-1.22196
0.034161	0.101081	-0.53642	0.144278	-0.17166	-1.14548
0.035823	0.104945	-0.53246	0.094176	-0.16386	-1.0676
0.038102	0.103308	-0.52452	0.044997	-0.14757	-0.99112
0.041013	0.104004	-0.51446	0.006701	-0.12152	-0.91691
0.040525	0.107432	-0.50573	-0.01247	-0.0816	-0.84438
0.02879	0.108543	-0.49896	-0.01409	-0.04995	-0.77193
0.015485	0.098382	-0.49631	-0.01136	-0.04652	-0.69743
0.04076	0.064715	-0.49581	-0.01114	-0.05809	-0.62147
0.038201	0.065592	-0.49599	-0.01362	-0.0706	-0.54493
0.011379	0.062862	-0.49463	-0.01663	-0.07697	-0.4682
0.020013	0.04045	-0.4901	-0.01942	-0.07768	-0.39191
0.026084	0.033059	-0.48465	-0.02575	-0.07684	-0.31873
0.021707	0.055307	-0.47366	-0.0346	-0.07661	-0.25976
0.013471	0.055392	-0.45861	-0.04087	-0.0774	-0.22828
0.003662	0.057523	-0.44652	-0.04168	-0.07929	-0.22755
0.011301	0.040466	-0.43946	-0.03439	-0.0816	-0.25546
0.012533	0.015644	-0.43812	-0.02198	-0.08359	-0.30202
0.015898	0.015137	-0.44236	-0.00783	-0.08576	-0.35454
0.021109	0.008262	-0.45039	0.002869	-0.08745	-0.4011
0.011674	0.006932	-0.46178	0.008737	-0.08817	-0.43629
0.016383	0.005136	-0.47433	0.010498	-0.08856	-0.4565
0.02257	-0.00519	-0.48883	0.009246	-0.08972	-0.46292
0.01684	0.006093	-0.50918	0.007411	-0.09018	-0.45938

Aktual			Simulasi		
<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>	<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>
0.023123	0.017384	-0.52705	0.004237	-0.09097	-0.44931
0.042618	0.009234	-0.53103	0.001144	-0.0916	-0.43746
0.036511	0.016705	-0.52416	0.000698	-0.0928	-0.42727
0.025588	0.026129	-0.51189	0.001923	-0.09154	-0.41999
0.027612	0.021756	-0.49891	0.002874	-0.07371	-0.41599
0.029322	0.021112	-0.48401	0.000255	-0.04316	-0.4156
0.040782	0.028226	-0.47184	-0.00574	-0.01498	-0.41688
0.040375	0.025298	-0.46463	-0.00579	-0.00585	-0.41932
0.036117	0.030849	-0.462	-0.00106	-0.00729	-0.42145
0.031742	0.02733	-0.46289	0.004752	-0.00817	-0.42249
0.020384	0.028835	-0.46531	0.008831	-0.0051	-0.42219
0.029007	0.024654	-0.4694	0.009826	9.77E-05	-0.42084
0.025153	0.028158	-0.47626	0.009263	0.006157	-0.41826
0.026352	0.030357	-0.48211	0.008704	0.010174	-0.41515
0.024968	0.032223	-0.48517	0.0088	0.014189	-0.41177
0.020813	0.034719	-0.48684	0.010249	0.017051	-0.40921
0.019933	0.032262	-0.4865	0.012052	0.019658	-0.40732
0.015514	0.029607	-0.48434	0.012341	0.022606	-0.40527
0.01192	0.028066	-0.48083	0.012618	0.025294	-0.40472
0.013131	0.03531	-0.47771	0.011098	0.026346	-0.40434
0.018761	0.029321	-0.47626	0.006723	0.025351	-0.40466
0.016364	0.034648	-0.47484	-0.00045	0.023262	-0.40594
0.017521	0.033347	-0.47344	-0.00348	0.02191	-0.40785
0.026214	0.026162	-0.47543	-0.00169	0.02258	-0.41057
0.047933	0.078954	-0.5215	0.001373	0.025698	-0.41336
0.014722	0.16908	-0.62172	0.001911	0.030428	-0.4157
-0.04412	0.218991	-0.76789	-0.00022	0.035237	-0.4173
-0.13521	0.253586	-0.95011	-0.00189	0.040127	-0.41807
-0.19441	0.229062	-1.122	-0.0021	0.0447	-0.4184
-0.1841	0.165048	-1.29425	-0.00249	0.04901	-0.41751
-0.21854	0.14879	-1.46675	-0.00583	0.050743	-0.41622
-0.18641	0.124897	-1.62499	-0.01393	0.036335	-0.41433
-0.11597	0.099002	-1.77073	-0.01492	0.009885	-0.41333
-0.05136	0.068034	-1.9104	-0.0113	-0.00537	-0.41322
-0.03707	0.038254	-2.04844	-0.00842	-0.00714	-0.41365
-0.04733	0.015062	-2.17337	-0.00525	-0.00218	-0.41387
-0.05844	0.023799	-2.30244	-0.00253	0.003865	-0.41452
-0.06697	0.029655	-2.42799	-0.00244	0.005874	-0.41536
-0.0458	0.009326	-2.547	-0.00526	0.006245	-0.41557
-0.06303	0.005129	-2.67035	-0.00775	0.008809	-0.41509
-0.06621	0.005673	-2.80026	-0.00788	0.013202	-0.4154

Aktual			Simulasi		
<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>	<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>
-0.0466	-0.01139	-2.93426	-0.00802	0.017894	-0.41525
-0.0506	-0.01388	-3.06758	-0.00975	0.021483	-0.41481
-0.04329	-0.02156	3.070292	-0.01118	0.023283	-0.41421
-0.04484	-0.03144	2.918217	-0.01061	0.024358	-0.41402
-0.03754	-0.03181	2.768262	-0.00843	0.025395	-0.41356
-0.0321	-0.02623	2.630897	-0.00573	0.019528	-0.41368
-0.01887	-0.02944	2.551799	-0.00718	0.008127	-0.41358
-0.02014	0.017262	2.531745	-0.0091	-0.00152	-0.41334
-0.04744	0.103201	2.544631	-0.00716	-0.004	-0.4139
-0.04705	0.122004	2.577713	-0.0062	-0.00069	-0.41448
-0.00152	0.080758	2.626601	-0.00645	0.003536	-0.41453
-0.00405	0.078748	2.680197	-0.0059	0.006072	-0.41392
-0.00329	0.086889	2.732508	-0.00494	0.007674	-0.41443
-0.00019	0.117551	2.784677	-0.00484	0.007382	-0.41444
0.014038	0.127999	2.832282	-0.00631	0.005215	-0.41402
0.006488	0.131668	2.8427	-0.00635	0.001106	-0.41411
-0.06194	0.183662	2.789731	-0.0047	0.00138	-0.41354
-0.13138	0.260922	2.676403	-0.00331	0.00242	-0.41349
-0.18763	0.294029	2.538188	-0.00306	0.001978	-0.41318
-0.21517	0.252695	2.38672	-0.00313	0.002075	-0.41296
-0.20185	0.167158	2.223936	-0.00156	0.00062	-0.41327
-0.24392	0.158837	2.032989	-0.00225	-0.00149	-0.41317
-0.23082	0.132032	1.860807	-0.00276	-0.00286	-0.41329
-0.22397	0.044067	1.701857	-0.00184	-0.00263	-0.41299
-0.26588	-0.04077	1.553879	-0.00085	-0.00187	-0.41306
-0.25639	-0.08402	1.406519	0.000683	-0.00141	-0.4127
-0.16777	-0.10685	1.263362	-8.86E-05	-0.00274	-0.41269
-0.09937	-0.11559	1.113684	-0.00067	-0.00283	-0.4126
-0.00927	-0.09457	0.960908	-0.00025	-0.00204	-0.4131
0.045354	0.002175	0.813098	0.000828	-0.00274	-0.41278
0.04605	0.129482	0.673911	0.00071	-0.00344	-0.41244
0.090288	0.183383	0.522759	1.65E-05	-0.00359	-0.41206
0.088609	0.15553	0.397136	0.001543	-0.00289	-0.41197
0.031687	0.141865	0.342152	0.002564	-0.00254	-0.41197
0.023707	0.105286	0.346714	0.001343	-0.00268	-0.4122
0.01925	0.108073	0.391219	-0.00016	-0.00414	-0.41226
0.032774	0.089178	0.453618	-0.00087	-0.00393	-0.41291
0.059289	0.076708	0.512849	-0.0003	-0.00304	-0.41287
0.071249	0.045363	0.56265	-7.17E-05	-0.00355	-0.4132

Aktual			Simulasi		
<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>	<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>
0.055564	0.05482	0.598748	0.000721	-0.00389	-0.41327
0.045424	0.053544	0.618742	0.000946	-0.00381	-0.41326
0.036594	0.047275	0.626265	0.000878	-0.00293	-0.41329
0.042096	0.03592	0.629768	0.001043	-0.00266	-0.41338
0.050186	0.035317	0.635682	-7.31E-05	-0.00316	-0.41284
0.04143	0.032721	0.640935	-8.91E-05	-0.00288	-0.41244
0.032864	0.034439	0.643361	0.000299	-0.00195	-0.41197
0.026721	0.038015	0.643525	0.001162	-0.00157	-0.41192
0.021889	0.037032	0.639363	0.001152	-0.00191	-0.41245
-0.00242	0.048227	0.63348	0.001521	-0.00182	-0.41275
0.003341	0.041575	0.634207	0.001166	-0.00037	-0.41225
0.009027	0.023451	0.640814	0.00106	0.001204	-0.41211
0.009407	0.009212	0.646786	0.001427	0.002285	-0.41171
-0.00782	0.009598	0.645377	0.002019	0.002309	-0.41156
-0.00217	0.00867	0.639532	0.002228	0.002246	-0.41178
-0.00662	-0.00011	0.628277	0.002358	0.002744	-0.41186
-0.02182	3.27E-05	0.613719	0.002509	0.001614	-0.41187
0.00398	-0.00677	0.607075	0.002342	0.000704	-0.4118
0.006198	-0.01437	0.613241	0.001638	0.000392	-0.41252
-0.00221	-0.00475	0.627298	0.001378	0.001477	-0.41244
0.007635	-0.00057	0.642035	0.001373	0.001943	-0.41291
0.006946	-0.02081	0.650321	0.001914	0.002345	-0.41296
0.000196	-0.00957	0.650061	0.002356	0.002563	-0.41335
-0.00073	-0.01519	0.644924	0.004211	0.007792	-0.41418
-0.00202	-0.01169	0.637161	0.012543	0.038379	-0.42692
0.001342	-0.00052	0.635032	0.019571	0.087297	-0.46431
0.011919	-0.00462	0.643191	0.008174	0.135737	-0.53431
0.021905	-0.00778	0.650604	-0.02027	0.174854	-0.63495
0.014487	-0.00388	0.650154	-0.05891	0.204043	-0.75719
0.014133	0.007483	0.642844	-0.10676	0.222932	-0.88758
0.007917	0.010251	0.630348	-0.15924	0.232542	-1.01376
-0.00211	0.00502	0.615689	-0.2124	0.230775	-1.12631
0.011011	0.005285	0.600408	-0.25273	0.216489	-1.22055
0.01223	0.005119	0.590398	-0.26862	0.191501	-1.29759
0.02378	0.00607	0.58824	-0.2615	0.162108	-1.36237
0.020526	0.012383	0.59219	-0.24347	0.134983	-1.42403
0.018042	0.009174	0.598714	-0.22291	0.112639	-1.48731
0.021344	0.004739	0.606382	-0.20221	0.094918	-1.55593
0.027349	0.004487	0.614697	-0.17214	0.077171	-1.62906

Aktual			Simulasi		
<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>	<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>
0.025527	0.00413	0.621067	-0.13408	0.059625	-1.70732
0.0185	0.005559	0.619653	-0.09573	0.035094	-1.78738
0.018584	0.000725	0.615388	-0.06024	0.002895	-1.86892
0.018396	-0.00049	0.611231	-0.04142	-0.02492	-1.95061
0.019102	-0.00107	0.607045	-0.04762	-0.03125	-2.03
0.016069	-0.00815	0.606704	-0.06178	-0.02764	-2.10756
0.022482	-0.00516	0.604189	-0.07035	-0.02443	-2.18462
0.026524	0.003652	0.600691	-0.07273	-0.0264	-2.25697
0.028243	0.000123	0.59973	-0.07278	-0.03199	-2.33166
0.02426	0.018064	0.597583	-0.07114	-0.03934	-2.40617
0.031708	0.017849	0.595447	-0.06868	-0.04665	-2.48051
0.00399	0.026398	0.59516	-0.0657	-0.05487	-2.55461
0.013704	0.020294	0.596793	-0.06253	-0.06116	-2.62984
0.013791	0.015914	0.602294	-0.05928	-0.06636	-2.70587
0.009992	0.012706	0.613302	-0.05492	-0.07054	-2.78151
0.017297	0.019987	0.626552	-0.04865	-0.0737	-2.85741
0.016773	0.009218	0.63564	-0.04448	-0.07719	-2.93251
0.000471	0.024741	0.637887	-0.04011	-0.07964	-3.00789
0.012713	0.018191	0.633835	-0.03496	-0.08237	-3.08346
0.008167	0.005337	0.622588	-0.02786	-0.08534	3.124445
0.007448	-0.00707	0.607728	-0.02183	-0.088	3.048854
0.031848	0.009009	0.59404	-0.01548	-0.08975	2.973508
0.022473	-0.0151	0.577749	-0.01008	-0.09188	2.898638
0.027464	-0.01806	0.565801	-0.00442	-0.09325	2.823667
-0.04585	0.048648	0.563345	0.00242	-0.09311	2.748057
0.055268	-0.03798	0.575882	0.009998	-0.09251	2.67347
0.017517	0.006255	0.601347	0.02134	-0.09197	2.607432
-0.00083	0.019621	0.628325	0.032665	-0.09132	2.564763
-0.00269	0.021645	0.632151	0.037018	-0.08499	2.553296
-0.00448	0.02222	0.631771	0.027515	-0.06193	2.572543
-0.00395	0.022413	0.631595	0.009735	-0.03104	2.613507
-0.00446	0.021816	0.631827	-0.00914	-0.00442	2.663573
-0.0035	0.023076	0.630436	-0.01939	0.009457	2.711756
-0.00308	0.023126	0.630871	-0.01847	0.013081	2.749947
-0.00266	0.023475	0.632163	-0.01603	0.008558	2.773623
-0.00254	0.024103	0.631507	-0.01513	-0.01184	2.782949
-0.00205	0.024518	0.630955	-0.00687	-0.04368	2.780799
-0.00192	0.024732	0.630346	0.009671	-0.07263	2.771493
-0.00171	0.025077	0.630308	0.020823	-0.06373	2.759221
-0.00154	0.025323	0.630211	0.015196	-0.02176	2.749505
-0.00136	0.025644	0.629968	0.001807	0.017645	2.742137

Aktual			Simulasi		
<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>	<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>
-0.0012	0.025661	0.629402	-0.00578	0.034568	2.737626
-0.00109	0.025965	0.628895	-0.0078	0.033512	2.734476
-0.00087	0.026124	0.628718	-0.00735	0.028312	2.730928
-0.00072	0.026461	0.628539	-0.00609	0.026558	2.727215
-0.00072	0.026574	0.628615	-0.00525	0.027169	2.722354
-0.00043	0.026866	0.628285	-0.00658	0.027558	2.716375
-0.00028	0.027191	0.628015	-0.01082	0.028021	2.709695
-0.00018	0.027318	0.627637	-0.0303	0.033592	2.699034
-9.44E-05	0.027559	0.627567	-0.07212	0.053733	2.672928
4.84E-05	0.027764	0.627504	-0.1121	0.088693	2.618496
0.000143	0.027964	0.627323	-0.14647	0.12527	2.533415
0.000258	0.028097	0.627033	-0.18003	0.150943	2.423363
0.000309	0.028272	0.626788	-0.21742	0.163691	2.300089
0.000339	0.028421	0.626538	-0.24932	0.155748	2.177909
0.000461	0.028592	0.626393	-0.2572	0.121326	2.068708
0.000493	0.028752	0.62635	-0.24738	0.075429	1.973659
0.000558	0.0289	0.626278	-0.22534	0.038866	1.888502
0.000604	0.029035	0.626247	-0.19694	0.01997	1.809354
0.000677	0.029164	0.626023	-0.17257	0.006521	1.734893
0.000758	0.029283	0.625805	-0.18006	-0.01772	1.665601
0.000843	0.029418	0.625546	-0.21269	-0.05725	1.600078
0.000863	0.029562	0.625342	-0.24742	-0.09805	1.533334
0.00085	0.0297	0.625218	-0.27252	-0.12657	1.460173
0.000836	0.029818	0.625168	-0.27227	-0.14547	1.383239
0.000879	0.029966	0.625093	-0.23829	-0.15903	1.30294
0.000925	0.030065	0.624955	-0.1896	-0.16882	1.221347
0.000958	0.03015	0.624894	-0.13817	-0.17397	1.14053
0.000954	0.030211	0.624816	-0.0889	-0.16956	1.060309
0.000984	0.030317	0.624663	-0.04129	-0.15505	0.983134
0.001055	0.030414	0.624445	-0.00203	-0.13009	0.908314
0.001068	0.030521	0.624215	0.018221	-0.08926	0.835505
0.001068	0.030631	0.624074	0.022609	-0.04333	0.763431
0.001029	0.030774	0.623892	0.021627	-0.00603	0.690858
0.001001	0.030819	0.623764	0.026982	0.015425	0.616687
0.001014	0.030897	0.623736	0.036801	0.026959	0.540635
0.001009	0.030993	0.623679	0.042926	0.033784	0.463601
0.001003	0.031072	0.623524	0.035103	0.03763	0.387468
0.000998	0.03112	0.623367	0.022139	0.039732	0.319943
0.001034	0.031203	0.62323	0.014115	0.038453	0.274921
0.000992	0.031218	0.623013	0.009957	0.034862	0.260742

Aktual			Simulasi		
<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>	<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>
0.000987	0.031273	0.622788	0.005354	0.032992	0.277259
0.001006	0.031348	0.622613	-0.00171	0.032765	0.31564
0.00095	0.031378	0.622482	-0.01096	0.033922	0.364302
0.000923	0.031394	0.622418	-0.01876	0.034504	0.411802
0.000885	0.031389	0.622429	-0.02276	0.035038	0.449373
0.000858	0.031453	0.622401	-0.02007	0.034227	0.471316
0.000765	0.031551	0.622278	-0.01086	0.029218	0.477918
0.000711	0.03158	0.622132	-0.00222	0.024288	0.47254
0.00064	0.031579	0.621935	0.000572	0.022771	0.459788
0.00064	0.031602	0.621684	-0.0008	0.023471	0.443679
0.00058	0.031609	0.621488	-0.00368	0.025639	0.428711
0.000502	0.031606	0.621292	-0.00227	0.026226	0.418114
0.000431	0.031607	0.621196	-0.00207	0.025008	0.412972
0.000459	0.031664	0.621155	-0.00456	0.024613	0.412673
0.000409	0.031701	0.621113	-0.00815	0.024281	0.416374
0.000404	0.031737	0.62101	-0.01063	0.02586	0.422815
0.000343	0.031711	0.620879	-0.01251	0.02555	0.429874
0.000297	0.031708	0.620682	-0.01086	0.022281	0.436342
0.000274	0.031739	0.620518	-0.00868	0.018181	0.440374
0.000276	0.031709	0.620411	-0.00815	0.015572	0.442363
0.000266	0.031747	0.620304	-0.00861	0.015046	0.44192
0.000275	0.031727	0.620274	-0.00868	0.015551	0.441061
0.000283	0.031755	0.620256	-0.00845	0.016223	0.439293
0.000279	0.031776	0.620223	-0.00526	0.014896	0.437904
0.000287	0.031847	0.620216	-0.00175	0.012313	0.436919
0.000261	0.031873	0.620102	-0.00147	0.009825	0.436991
0.00032	0.031861	0.619915	-0.00316	0.00923	0.436996
0.000361	0.031823	0.619716	-0.00546	0.010057	0.436719
0.000388	0.03176	0.619546	-0.00627	0.010218	0.437269
0.000374	0.031747	0.619397	-0.00615	0.008684	0.437239
0.00034	0.03174	0.619223	-0.00216	0.00584	0.437626
0.000322	0.031737	0.61913	-0.00153	0.004553	0.437633
0.000347	0.031704	0.619102	-0.003	0.005158	0.438031
0.00036	0.031675	0.619077	-0.00421	0.00492	0.438145
0.000403	0.031624	0.619027	-0.00497	0.003536	0.438188
0.000424	0.031571	0.618921	-0.00173	0.00082	0.438185
0.000464	0.031561	0.618733	6.94E-05	-0.00023	0.437695
0.000496	0.031628	0.618514	-0.00053	-0.00016	0.437328
0.000503	0.031606	0.618438	-0.00224	-0.00016	0.437413
0.000462	0.03151	0.618348	-0.00215	0.000338	0.437183

Aktual			Simulasi		
<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>	<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>
0.000487	0.031454	0.618226	-0.00141	-6.74E-05	0.437153
0.000475	0.031447	0.618138	-0.00077	0.000137	0.437046
0.000523	0.031429	0.618105	-0.00161	0.000331	0.437174
0.000575	0.03137	0.618124	-0.00112	-0.00086	0.436591
0.000534	0.03134	0.61817	-0.00056	-0.00086	0.436382
0.000518	0.031276	0.618086	-0.00028	0.000549	0.436422
0.000549	0.031254	0.617932	-0.00162	0.001585	0.436201
0.000586	0.031258	0.617759	-0.00084	0.001217	0.436424
0.000603	0.031269	0.617641	-0.00014	0.002526	0.437189
0.000604	0.031239	0.617492	-0.00031	0.003283	0.437644
0.000591	0.031234	0.617417	-0.00047	0.002105	0.437884
0.000658	0.03119	0.617449	-0.00084	0.000906	0.43794
0.000663	0.031236	0.617499	0.00076	0.000724	0.437443
0.000669	0.031238	0.617406	0.000601	0.000951	0.437015
0.00075	0.031262	0.617305	-0.00019	0.001011	0.436622
0.000828	0.031227	0.617136	-0.00145	0.000882	0.437073
0.000839	0.03121	0.616955	-0.00183	0.000934	0.437023
0.000913	0.031169	0.616699	-0.00167	0.001539	0.437121
0.000936	0.0311	0.616474	-0.00224	0.002488	0.437272
0.000926	0.031058	0.616366	-0.0019	0.003179	0.437282
0.000955	0.031004	0.616333	-0.00258	0.003755	0.43667
0.00104	0.030921	0.616204	-0.00152	0.004722	0.436823
0.001051	0.030868	0.616182	-0.00177	0.005676	0.436893
0.001084	0.030826	0.616076	-0.00268	0.005778	0.436554
0.001153	0.030828	0.615973	-0.00353	0.005881	0.436624
0.00116	0.030802	0.615915	-0.00382	0.006171	0.436116
0.001184	0.030823	0.615758	-0.00261	0.00677	0.435773
0.001184	0.030815	0.615526	-0.00317	0.005205	0.435486
0.001334	0.030777	0.615281	-0.00236	0.005047	0.435807
0.00139	0.030797	0.615159	-0.003	0.004994	0.436174
0.001316	0.030737	0.615121	-0.0029	0.005003	0.436816
0.001342	0.030702	0.615215	-0.00386	-0.00196	0.437364
0.001434	0.030778	0.615087	-0.00325	-0.00162	0.437408
0.001464	0.030766	0.615124	-0.0037	-0.00124	0.437515
0.001458	0.030758	0.614916	-0.00351	-0.00068	0.437384
0.001428	0.030779	0.614678	-0.00334	-0.00064	0.43722
0.001469	0.030767	0.614469	-0.00337	-0.00047	0.437316
0.001461	0.030689	0.614377	-0.00326	-0.00012	0.437084
0.001504	0.030724	0.614351	-0.00287	-0.0003	0.43676
0.001492	0.030689	0.614375	-0.00287	4.66E-05	0.436694

Aktual			Simulasi		
<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>	<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>
0.001468	0.030701	0.614448	-0.00254	-1.35E-05	0.436646
0.001524	0.030694	0.614391	-0.00272	-2.27E-05	0.437054
0.001518	0.030709	0.614227	-0.00286	-0.00059	0.437121
0.001537	0.030672	0.614019	-0.00271	-0.00078	0.437334
0.001556	0.030622	0.613862	-0.0024	-0.00107	0.437819
0.001516	0.030597	0.613754	-0.00272	-0.00058	0.437346
0.001533	0.030554	0.613646	-0.00284	-0.00038	0.437703
0.001489	0.030572	0.613564	-0.00247	-0.00042	0.437929
0.00148	0.0306	0.613562	-0.00233	-0.00061	0.437795
0.001444	0.030571	0.613479	-0.00246	-0.00074	0.437576
0.001431	0.030571	0.613461	-0.00258	-0.00045	0.437424
0.001456	0.030558	0.613442	-0.00255	2.02E-05	0.437369
0.001486	0.030554	0.613317	-0.0025	0.00013	0.438
0.001554	0.03061	0.61313	-0.00249	-8.96E-05	0.438
0.001576	0.030608	0.612948	-0.00278	-7.46E-05	0.438165
0.001575	0.030657	0.612784	-0.00237	0.000505	0.43811
0.001613	0.030603	0.612587	-0.00245	0.000907	0.438271
0.00154	0.030631	0.612493	-0.00236	0.00082	0.43836
0.001549	0.030655	0.612481	-0.00231	0.000958	0.43843
0.001581	0.030753	0.612384	-0.00209	0.001233	0.439133
0.001605	0.030726	0.612278	-0.0016	0.001207	0.439357
0.001568	0.030688	0.612171	-0.00129	0.001636	0.439443
0.001545	0.030648	0.612082	-0.00074	0.002097	0.439155
0.001491	0.030691	0.612096	-0.00055	0.002694	0.439147
0.001507	0.030686	0.611969	-0.00071	0.002375	0.438999
0.001465	0.030691	0.61175	-0.0005	0.002535	0.439015
0.001483	0.03068	0.611525	-0.00093	0.002847	0.438906
0.001546	0.030646	0.611443	-0.001	0.002986	0.439209
0.001472	0.03072	0.611587	-0.00068	0.003175	0.439198
0.00144	0.030553	0.611586	-0.00035	0.003439	0.438847
0.001427	0.030615	0.611528	-0.00057	0.003664	0.439412
0.001426	0.030614	0.611382	-0.00068	0.003816	0.439758
0.001406	0.030599	0.611207	-0.00102	0.003949	0.439691
0.001352	0.030651	0.611049	-0.00083	0.003536	0.439723
0.001409	0.030677	0.610933	-0.00137	0.003792	0.439855
0.001254	0.030716	0.610634	-0.00147	0.00385	0.439565
0.001271	0.030619	0.61054	-0.00176	0.004225	0.440134
0.001198	0.030686	0.610381	-0.00173	0.004009	0.440557

Aktual			Simulasi		
<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>	<i>Roll</i>	<i>Pitch</i>	<i>Yaw</i>
0.001172	0.030657	0.610426	-0.00187	0.004075	0.44084
0.001163	0.030634	0.610436	-0.00215	0.004034	0.441234
0.001129	0.030564	0.610426	-0.00202	0.004037	0.441001
0.001143	0.030549	0.610408	-0.00195	0.004103	0.441235
0.001079	0.030487	0.610241	-0.00141	0.004398	0.441202
0.001115	0.030426	0.61001	-0.00162	0.004536	0.441517

Lampiran 6 Data Kecepatan Horizontal dan Vertikal

Simulasi		Aktual	
Vertikal	Horizontal	Vertikal	Horizontal
0.011286	0.063871	0.035493	0.236597
0.014801	0.052065	0.041996	0.049206
0.00442	0.039207	0.060648	0.131609
-5.71E-05	0.031889	0.1091	0.108895
0.000861	0.027494	0.034961	0.085713
-0.00364	0.044235	0.337345	0.166735
-0.00175	0.053971	0.766084	0.235386
0.683425	0.083907	1.018351	0.345161
0.978868	0.071289	1.118812	1.704559
0.987871	0.120723	1.069675	2.841972
0.7943	0.104838	0.971315	2.841987
0.448085	0.220824	0.803575	2.685879
0.119209	2.309669	0.504086	1.924694
0.064089	2.481371	0.297106	1.216767
0.043737	1.808827	0.145358	0.691109
0.033739	0.986788	0.018672	1.597084
0.016836	1.198064	0.108919	2.635543
-0.02373	2.613679	0.138324	2.715811
0.014735	2.404807	0.115904	2.685256
0.00648	2.437647	0.201522	2.717807
0.002148	2.063233	0.180277	2.451697
0.003208	1.332155	0.070374	1.796168
-1.4689	0.756167	-0.03484	1.302356
-0.72841	0.449985	0.149871	0.884207
-0.46977	0.251609	0.147437	0.656937
-0.24769	0.184703	0.112874	0.441699
-0.12484	0.148918	0.109224	0.366327
-0.07055	0.116972	-0.01138	0.311681
-0.03345	0.081416	-1.21937	0.349371
-0.01822	0.043555	-1.32776	0.308904
0.339726	1.085512	-0.58677	0.236493
0.507104	2.643005	-0.39472	0.163589
0.518379	2.434739	-0.20926	0.121253
0.536237	2.459055	-0.11413	0.09438
0.469939	2.365975	-0.05797	0.045794
0.271875	1.826753	-0.08624	1.304615
0.224616	0.959565	-0.03978	2.632359
0.105042	1.409672	-0.0712	2.725199
0.048372	2.62642	-0.06961	2.790289

Simulasi		Aktual	
Vertikal	Horizontal	Vertikal	Horizontal
0.068525	1.725452	0.036273	2.748508
-0.08736	1.030769	-0.00018	2.753362
-0.63215	0.591736	0.337911	2.255525
-0.6816	0.328872	0.542874	1.795013
-0.68567	0.207822	0.529112	1.281086
-0.68827	0.147753	0.486002	0.468109
-0.68879	0.094276	0.513137	1.274661
-1.02161	0.011304	0.660277	2.54568
-0.74008	0.023985	0.972374	2.565997
-1.07315	0.018975	0.663931	1.814765
-1.27973	0.038535	0.221248	1.188525
-1.36155	0.071989	0.037655	0.904109
-0.63213	0.066926	-0.32278	0.550715
-0.48407	0.038392	-0.04389	0.353767
-0.39235	0.038996	0.078722	0.259529
-0.29735	0.025452	0.298028	0.186161
-0.20468	0.010155	-0.22281	0.133818
-0.14725	0.041829	-0.48502	0.180827
-0.0854	0.048542	-0.7474	0.179593
-0.03978	0.075593	-0.79759	0.145203

Lampiran 7 Data Akurasi Trajektori

Simulasi		Aktual	
<i>Longitude</i>	<i>latitude</i>	<i>Longitude</i>	<i>Latitude</i>
-6.876194	107.6217	-6.8762	107.6217
-6.876194	107.6217	-6.876199	107.6217
-6.876194	107.6217	-6.876199	107.6217
-6.876194	107.6217	-6.876199	107.6217
-6.876194	107.6217	-6.876199	107.6217
-6.876194	107.6217	-6.876199	107.6217
-6.876194	107.6217	-6.876199	107.6217
-6.876194	107.6217	-6.876198	107.6217
-6.876194	107.6217	-6.876198	107.6217
-6.876194	107.6217	-6.876198	107.6217
-6.876194	107.6217	-6.876198	107.6217
-6.876193	107.6217	-6.876198	107.6217
-6.876193	107.6217	-6.876198	107.6217
-6.876194	107.6217	-6.876198	107.6217
-6.876194	107.6217	-6.876198	107.6217
-6.876194	107.6217	-6.876197	107.6217
-6.876194	107.6217	-6.876197	107.6217
-6.876194	107.6217	-6.876197	107.6217
-6.876194	107.6217	-6.876197	107.6217
-6.876193	107.6217	-6.876197	107.6217
-6.876194	107.6217	-6.876197	107.6217
-6.876194	107.6217	-6.876197	107.6217
-6.876194	107.6217	-6.876197	107.6217
-6.876194	107.6217	-6.876197	107.6217
-6.876194	107.6217	-6.876197	107.6217
-6.876194	107.6217	-6.876197	107.6217
-6.876194	107.6217	-6.876197	107.6217
-6.876194	107.6217	-6.876196	107.6217
-6.876194	107.6217	-6.876196	107.6217
-6.876194	107.6217	-6.876196	107.6217
-6.876193	107.6217	-6.876196	107.6217
-6.876194	107.6217	-6.876196	107.6217
-6.876196	107.6217	-6.876196	107.6217
-6.876201	107.6217	-6.876196	107.6217
-6.876209	107.6217	-6.876196	107.6217
-6.876218	107.6217	-6.876195	107.6217
-6.876227	107.6217	-6.876195	107.6217
-6.876235	107.6217	-6.876195	107.6217
-6.876241	107.6217	-6.876195	107.6217
-6.876247	107.6217	-6.876195	107.6217
-6.876251	107.6217	-6.876195	107.6217

Simulasi		Aktual	
<i>Longitude</i>	<i>latitude</i>	<i>Longitude</i>	<i>Latitude</i>
-6.876254	107.6217	-6.876195	107.6217
-6.876254	107.6217	-6.876195	107.6217
-6.87625	107.6217	-6.876195	107.6217
-6.876245	107.6217	-6.876195	107.6217
-6.876236	107.6217	-6.876199	107.6217
-6.876227	107.6217	-6.876211	107.6217
-6.876219	107.6217	-6.876221	107.6217
-6.876211	107.6217	-6.876234	107.6217
-6.876203	107.6217	-6.876243	107.6217
-6.876195	107.6217	-6.876252	107.6217
-6.876187	107.6217	-6.876256	107.6217
-6.87618	107.6217	-6.876253	107.6217
-6.876173	107.6217	-6.876248	107.6217
-6.876167	107.6217	-6.876236	107.6217
-6.876163	107.6217	-6.87622	107.6217
-6.876159	107.6217	-6.87621	107.6217
-6.876156	107.6217	-6.876196	107.6217
-6.876153	107.6217	-6.876186	107.6217
-6.876152	107.6217	-6.876174	107.6217
-6.87615	107.6217	-6.876167	107.6217
-6.876149	107.6217	-6.876161	107.6217
-6.876149	107.6217	-6.876158	107.6217
-6.876148	107.6217	-6.876155	107.6217
-6.876148	107.6217	-6.876153	107.6217
-6.876148	107.6217	-6.876152	107.6217
-6.876148	107.6217	-6.876152	107.6217
-6.876148	107.6217	-6.876152	107.6217
-6.876148	107.6216	-6.876152	107.6217
-6.876147	107.6216	-6.876151	107.6217
-6.876147	107.6216	-6.87615	107.6217
-6.876147	107.6216	-6.876149	107.6217
-6.876147	107.6216	-6.876149	107.6217
-6.876147	107.6216	-6.876148	107.6217
-6.876147	107.6216	-6.876148	107.6217
-6.876147	107.6216	-6.876148	107.6217
-6.876147	107.6216	-6.876148	107.6217
-6.876148	107.6216	-6.876148	107.6217
-6.876151	107.6217	-6.876149	107.6217
-6.876157	107.6217	-6.876155	107.6217
-6.876166	107.6217	-6.876163	107.6217
-6.876175	107.6217	-6.876178	107.6217
-6.876183	107.6217	-6.876187	107.6217

Simulasi		Aktual	
<i>Longitude</i>	<i>latitude</i>	<i>Longitude</i>	<i>Latitude</i>
-6.876193	107.6217	-6.876192	107.6217
-6.876193	107.6217	-6.876192	107.6217
-6.876193	107.6217	-6.876192	107.6217
-6.876193	107.6217	-6.876192	107.6217
-6.876193	107.6217	-6.876192	107.6217