



NDTA – USTRANSCOM Transportation University

DELIVERING NATIONAL OBJECTIVES:
OPERATING IN AN INCREASINGLY DISRUPTIVE WORLD

Session: H - S13

**Title: Global Low Volume-Low Frequency
Distribution Challenges**

Transportation University encourages a free flow of ideas. In the spirit of this academic setting, the views of the instructors and participants are assumed to be their own and not those of NDTA, DoD, USTRANSCOM, or anybody's parent organization/company.

The True Size of Africa

A small contribution in the fight against rampant *immappancy*, by Kai Krause

Graphic layout for visualization only (some countries are cut and rotated)
But the conclusions are very accurate: refer to table below for exact data

COUNTRY	AREA x 1000 km ²
China	9.597
USA	9.629
India	3.287
Mexico	1.954
Peru	1.285
France	633
Spain	506
Papua New Guinea	462
Sweden	441
Japan	378
Germany	357
Norway	324
Italy	301
New Zealand	270
United Kingdom	243
Nepal	147
Bangladesh	144
Greece	132
TOTAL	30.102
AFRICA	30.221



Top 100 Countries

Area in square kilometers, Percentage of World Total
Sources: Britannica, Wikipedia, Almanac 2010

	AREA km ²	%	
1	Russia	17.098.042	11,92
2	Canada	9.984.670	6,70
3	China	9.596.961	6,40
4	United States	9.629.091	6,40
5	Brazil	8.514.877	5,70
6	Australia	7.692.024	5,20
7	India	3.287.263	2,30
8	Argentina	2.790.400	2,00
9	Kazakhstan	2.724.900	1,90
10	Sudan	2.565.815	1,70
11	Algeria	2.381.741	1,60
12	Congo	2.344.856	1,60
13	Greenland	2.166.066	1,50
14	South Korea	2.128.690	1,40
15	Mexico	1.954.375	1,30
16	Indonesia	1.890.360	1,30
17	Libya	1.759.540	1,20
18	Iran	1.628.750	1,10
19	Mongolia	1.564.100	1,10
20	Peru	1.285.216	0,96
21	Chad	1.284.000	0,96
22	Niger	1.267.000	0,85
23	Angola	1.246.700	0,85
24	Mal	1.240.190	0,83
25	South Africa	1.221.037	0,82
26	Colombia	1.141.748	0,76
27	Ethiopia	1.104.300	0,74
28	Bolivia	1.098.581	0,74
29	Mauritania	1.025.520	0,69
30	Egypt	1.002.000	0,67
31	Tanzania	945.067	0,63
32	Nigeria	923.768	0,62
33	Venezuela	912.000	0,61
34	Norway	824.116	0,55
35	Haiti	807.585	0,54
36	Pakistan	796.095	0,53
37	Turkey	783.562	0,53
38	Chile	756.102	0,51
39	Zambia	752.612	0,51
40	Myanmar	678.578	0,45
41	Afghanistan	652.095	0,44
42	Somalia	637.657	0,43
43	France	632.834	0,43
44	C. African Rep	622.984	0,42
45	Ukraine	603.500	0,41
46	Madagascar	587.041	0,39
47	Botswana	582.000	0,39
48	Kenya	582.367	0,39
49	Yemen	527.968	0,35
50	Thailand	513.120	0,34
51	Spain	505.990	0,34
52	Turkmenistan	488.100	0,33
53	Cameroun	475.442	0,32
54	Papua New Guinea	462.840	0,31
55	Uzbekistan	447.400	0,30
56	Morocco	446.550	0,30
57	Sweden	441.370	0,30
58	Iraq	438.317	0,29
59	Paraguay	406.750	0,27
60	Zimbabwe	390.757	0,26
61	Japan	377.900	0,25
62	Germany	357.114	0,24
63	Rep. of Congo	342.000	0,23
64	Finland	338.119	0,23
65	Vietnam	331.212	0,22
66	Malaysia	330.800	0,22
67	Norway	323.802	0,22
68	Côte d'Ivoire	322.463	0,22
69	Poland	312.685	0,21
70	Ghana	305.600	0,21
71	Italy	301.338	0,20
72	Philippines	300.000	0,20
73	Burkina Faso	274.222	0,18
74	New Zealand	270.467	0,18
75	Gabon	267.666	0,18
76	Western Sahara	266.000	0,18
77	Ecuador	284.390	0,20
78	Guinea	243.057	0,17
79	United Kingdom	242.500	0,17
80	Uganda	241.008	0,16
81	Ghana	238.539	0,16
82	Romania	238.391	0,16
83	Laos	236.600	0,16
84	Guyana	214.960	0,14
85	Belarus	207.600	0,14
86	Kyrgyzstan	199.501	0,13
87	Senegal	196.720	0,13
88	Syria	185.180	0,12
89	Comodo	181.005	0,12
90	Uruguay	178.215	0,12
91	Suriname	163.825	0,11
92	Tanzania	163.610	0,11
93	Nepal	147.181	0,10
94	Bangladesh	143.568	0,10
95	Tajikistan	143.100	0,10
96	Greece	131.967	0,09
97	Mozambique	126.373	0,09
98	North Korea	126.538	0,08
99	Malawi	118.484	0,08
100	Eritrea	117.600	0,08
TOP 100 TOTAL		132.632.824	89,34



In addition to the well known social issues of *illiteracy* and *innumeracy*, there also should be such a concept as *"immappancy"*, meaning *insufficient geographical knowledge*.

A survey with random American schoolkids let them guess the population and land area of their country. Not entirely unexpected, but still rather unsettling, the majority chose *"1-2 billion"* and *"largest in the world"*, respectively.

Even with Asian and European college students, geographical estimates were often off by factors of 2-3. This is partly due to the highly distorted nature of the predominantly used mapping projections (such as *Mercator*).

A particularly extreme example is the worldwide misjudgement of the true size of *Africa*. This single image tries to embody the massive scale, which is larger than the *USA*, *China*, *India*, *Japan* and *all of Europe*..... combined!

