keyless embeddings

Table — rows grouped by stego dataset (alaska2, bows2, smartphone) and by analysis category (blind, non-blind, detection). For each of the five payloads the columns give success count / success %, then fails count / fails %.

sect.	analysis-tools	attributes	stego-tool	67 bytes ASCII — succ#	succ%	fail#	fail%	1.53kb ASCII — succ#	succ%	fail#	fail%	17.5kb ASCII — succ#	succ%	fail#	fail%	16kb min. entropy — succ#	succ%	fail#	fail%	16.8kb binary — succ#	succ%	fail#	fail%
	alaska2 — 640 covers			sample set 640 covers; embeds 4/5; max. error 2560; skipped steghide*				640 covers; 4/5; 2560				640 covers; 4/5; 2560				640 covers; 4/5; 2560				640 covers; 3/5; 1920; skipped steghide, f5*			
blind	exiftool	file size	steghide	skipped		1439	56.211%	skipped		1297	50.664%	skipped		879	34.336%	skipped		880	34.375%	skipped		636	33.125%
blind		JFIF version	jsteg	640	100.000%			640	100.000%			640	100.000%			640	100.000%			640	100.000%		
blind	binwalk	data type	jsteg	640	100.000%			640	100.000%			640	100.000%			639	99.844%			639	99.844%		
blind		JFIF version	jsteg	640	100.000%			640	100.000%			640	100.000%			639	99.844%			639	99.844%		
blind	strings	file header	jsteg	640	100.000%			640	100.000%			640	100.000%			640	100.000%			640	100.000%		
blind			outguess-0.15	639	99.844%	850	33.203%	476	74.375%	661	25.820%	capacity**		213	8.320%	capacity**		213	8.320%	capacity**		213	11.094%
blind			outguess-0.13	637	99.531%	852	33.281%	448	70.000%	689	26.914%	capacity**		213	8.320%	capacity**		213	8.320%	capacity**		213	11.094%
blind			f5	640	100.000%			640	100.000%			640	100.000%			640	100.000%			skipped			
blind	foremost	image format integrity	jsteg	640	100.000%			640	100.000%			640	100.000%			640	100.000%			640	100.000%		
non-blind	imagemagick (compare, identify)	mean color of difference image	steghide	skipped		79	3.086%	skipped		40	1.563%	skipped		37	1.445%	skipped		37	1.445%	skipped		38	1.979%
non-blind	stegoveritas, imagemagick (compare, identify)	mean color of stegoveritas-decomposition difference images	steghide	skipped		360	14.063%	skipped		140	5.469%	skipped		114	4.453%	skipped		114	4.453%	skipped		108	5.625%
detection	stegbreak	stegbreak detection	jsteg	28	4.375%	74	2.891%	40	6.250%	71	2.773%	47	7.344%	50	1.953%	29	4.531%	44	1.719%	41	6.406%	32	1.667%
detection			outguess-0.13	0	0.000%	2	0.078%	0	0.000%	2	0.078%	capacity**		2	0.078%	capacity**		18	0.703%	capacity**		3	0.156%
detection		unexpected eof warning	jsteg	5	0.781%			176	27.500%			640	100.000%			640	100.000%			640	100.000%		
detection	stegdetect	stegdetect detection	jsteg	0	0.000%			0	0.000%			0	0.000%			0	0.000%			0	0.000%		
detection			outguess-0.13	11	1.719%	20	0.781%	105	16.406%	52	2.031%	capacity**		60	2.344%	capacity**		44	1.719%	capacity**		21	1.094%
	bows2 — 192 covers			sample set 192 covers; embeds 4/5; max. error 768; skipped steghide*				192 covers; 4/5; 768				192 covers; 4/5; 768				192 covers; 4/5; 768				192 covers; 3/5; 576; skipped steghide, f5*			
blind	exiftool	file size	steghide	skipped				skipped				skipped				skipped				skipped			
blind		JFIF version	jsteg	192	100.000%			192	100.000%			192	100.000%			192	100.000%			192	100.000%		
blind	binwalk	data type	jsteg	192	100.000%			191	99.479%			191	99.479%			192	100.000%			192	100.000%		
blind		JFIF version	jsteg	192	100.000%			191	99.479%			191	99.479%			192	100.000%			192	100.000%		
blind	strings	file header	jsteg	192	100.000%			192	100.000%			192	100.000%			192	100.000%			192	100.000%		
blind			outguess-0.15	192	100.000%	192	25.000%	136	70.833%	131	17.057%	capacity**				capacity**				capacity**			
blind			outguess-0.13	192	100.000%	192	25.000%	131	68.229%	136	17.708%	capacity**				capacity**				capacity**			
blind			f5	192	100.000%			192	100.000%			192	100.000%			192	100.000%			skipped			
blind	foremost	image format integrity	jsteg	192	100.000%			192	100.000%			192	100.000%			192	100.000%			192	100.000%		
non-blind	imagemagick (compare, identify)	mean color of difference image	steghide	skipped		2	0.260%	skipped		1	0.130%	skipped		1	0.130%	skipped		1	0.130%	skipped		1	0.174%
non-blind	stegoveritas, imagemagick (compare, identify)	mean color of stegoveritas-decomposition difference images	steghide	skipped		41	5.339%	skipped		16	2.083%	skipped		16	2.083%	skipped		16	2.083%	skipped		10	1.736%
detection	stegbreak	stegbreak detection	jsteg	3	1.563%	18	2.344%	5	2.604%	16	2.083%	5	2.604%	10	1.302%	4	2.083%	11	1.432%	7	3.646%	9	1.563%
detection			outguess-0.13	0	0.000%	11	1.432%	0	0.000%	11	1.432%	capacity**		11	1.432%	capacity**		14	1.823%	capacity**		11	1.910%
detection		unexpected eof warning	jsteg	0	0.000%			39	20.313%			192	100.000%			192	100.000%			192	100.000%		
detection	stegdetect	stegdetect detection	jsteg	0	0.000%			0	0.000%			0	0.000%			0	0.000%			0	0.000%		
detection			outguess-0.13	1	0.521%	2	0.260%	24	12.500%	1	0.130%	capacity**		3	0.391%	capacity**		17	2.214%	capacity**		4	0.694%
	smartphone — 192 covers			sample set 192 covers; embeds 3/5; max. error 576; skipped steghide, f5*				192 covers; 3/5; 576				192 covers; 3/5; 576				192 covers; 3/5; 576				192 covers; 3/5; 576			
blind	exiftool	file size	steghide	skipped		99	17.188%	skipped		94	16.319%	skipped		80	13.889%	skipped		80	13.889%	skipped		80	13.889%
blind		JFIF version	jsteg	189	98.438%	178	30.903%	189	98.438%	178	30.903%	189	98.438%	178	30.903%	189	98.438%	178	30.903%	189	98.438%	178	30.903%
blind	binwalk	data type	jsteg	184	95.833%	2	0.347%	184	95.833%	2	0.347%	183	95.313%	2	0.347%	184	95.833%	2	0.347%	184	95.833%	2	0.347%
blind		JFIF version	jsteg	184	95.833%	2	0.347%	184	95.833%	2	0.347%	183	95.313%	2	0.347%	184	95.833%	2	0.347%	184	95.833%	2	0.347%
blind	strings	file header	jsteg	189	98.438%	2	0.347%	189	98.438%	2	0.347%	189	98.438%	2	0.347%	189	98.438%	2	0.347%	189	98.438%	2	0.347%
blind			outguess-0.15	177	92.188%	204	35.417%	103	53.646%	202	35.069%	95	49.479%	189	32.813%	95	49.479%	192	33.333%	95	49.479%	192	33.333%
blind			outguess-0.13	190	98.958%	191	33.160%	189	98.438%	116	20.139%	178	92.708%	106	18.403%	181	94.271%	106	18.403%	181	94.271%	106	18.403%
blind			f5	skipped				skipped				skipped				skipped				skipped			
blind	foremost	image format integrity	jsteg	189	98.438%	3	0.521%	189	98.438%	3	0.521%	189	98.438%	3	0.521%	189	98.438%	3	0.521%	189	98.438%	3	0.521%
non-blind	imagemagick (compare, identify)	mean color of difference image	steghide	skipped		32	5.556%	skipped		30	5.208%	skipped		13	2.257%	skipped		13	2.257%	skipped		14	2.431%
non-blind	stegoveritas, imagemagick (compare, identify)	mean color of stegoveritas-decomposition difference images	steghide	skipped				skipped				skipped				skipped				skipped			
detection	stegbreak	stegbreak detection	jsteg	15	7.813%	15	2.604%	17	8.854%	14	2.431%	18	9.375%	13	2.257%	14	7.292%	14	2.431%	14	7.292%	13	2.257%
detection			outguess-0.13	0	0.000%			0	0.000%			0	0.000%			0	0.000%	16	2.778%	0	0.000%	1	0.174%
detection		unexpected eof warning	jsteg	0	0.000%			1	0.521%			13	6.771%	2	0.347%	12	6.250%	2	0.347%	13	6.771%	2	0.347%
detection	stegdetect	stegdetect detection	jsteg	0	0.000%			0	0.000%			0	0.000%			0	0.000%			0	0.000%		
detection			outguess-0.13	1	0.521%	13	2.257%	4	2.083%	15	2.604%	39	20.313%	21	3.646%	34	17.708%	18	3.125%	41	21.354%	13	2.257%

*according to test protocol: skipped **steghide** because it forces an embedding key; skipped **f5** because it does not support binary data nor high resoluted images

embedding error: capacity exceeded; unfortunately no stego object is created by **outguess-0.15 and **outguess-0.13**

	analysis-tools	attributes	stego-tool	67 bytes ASCII text success		fails		1.53kb ASCII text success		fails		17.5kb ASCII text success		fails		16kb min. entropy ASCII success		fails		16.8kb binary data success		fails	
2																							
	alaska2 — 640 covers			sample set: **640 covers** — embeds: **4/5** — max. error: **2560** — *skipped jsteg**				**640 covers** — **4/5** — **2560**				**640 covers** — **4/5** — **2560**				**640 covers** — **4/5** — **2560**				**640 covers** — **3/5** — **1920** — *skipped jsteg, f5**			
blind	exiftool	file size	steghide	638	99.688%	1221	47.695%	638	99.688%	1082	42.266%	637	99.531%	669	26.133%	638	99.688%	667	26.055%	532	83.125%	426	22.188%
		JFIF version	jsteg	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
	binwalk	data type	jsteg	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
		JFIF version	jsteg	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
	strings	file header	jsteg	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
			outguess-0.15	639	99.844%	1063	41.523%	476	74.375%	873	34.102%	*capacity***		423	16.523%	*capacity***		426	16.641%	*capacity***		331	17.240%
			outguess-0.13	637	99.531%	1065	41.602%	448	70.000%	901	35.195%	*capacity***		423	16.523%	*capacity***		426	16.641%	*capacity***		331	17.240%
			f5	640	100.000%			640	100.000%			640	100.000%			640	100.000%			*skipped*			
	foremost	image format integrity	jsteg	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
non-blind	imagemagick (compare, identify)	mean color of difference image	steghide	640	100.000%	63	2.461%	639	99.844%	36	1.406%	631	98.594%	35	1.367%	640	100.000%	35	1.367%	117	18.281%	35	1.823%
	stegoveritas, imagemagick (compare, identify)	mean color of stegoveritas-decomposition difference images	steghide	640	100.000%	281	10.977%	639	99.844%	121	4.727%	637	99.531%	114	4.453%	640	100.000%	114	4.453%	394	61.563%	108	5.625%
detection	stegbreak	stegbreak detection	jsteg	*skipped*		88	3.438%	*skipped*		82	3.203%	*skipped*		65	2.539%	*skipped*		60	2.344%	*skipped*		47	2.448%
			outguess-0.13	0	0.000%	4	0.156%	0	0.000%	4	0.156%	*capacity***		4	0.156%	*capacity***		5	0.195%	*capacity***		3	0.156%
		unexpected eof warning	jsteg	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
	stegdetect	stegdetect detection	jsteg	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
			outguess-0.13	10	1.563%	16	0.625%	106	16.563%	13	0.508%	*capacity***		10	0.391%	*capacity***		9	0.352%	*capacity***		7	0.365%
	bows2 — 192 covers			sample set: **192 covers** — embeds: **4/5** — max. error: **768** — *skipped jsteg**				**192 covers** — **4/5** — **768**				**192 covers** — **4/5** — **768**				**192 covers** — **4/5** — **768**				**192 covers** — **3/5** — **576** — *skipped jsteg, f5**			
blind	exiftool	file size	steghide	192	100.000%			192	100.000%			192	100.000%			192	100.000%			192	100.000%		
		JFIF version	jsteg	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
	binwalk	data type	jsteg	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
		JFIF version	jsteg	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
	strings	file header	jsteg	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
			outguess-0.15	192	100.000%	192	25.000%	136	70.833%	131	17.057%	*capacity***				*capacity***				*capacity***			
			outguess-0.13	192	100.000%	192	25.000%	131	68.229%	136	17.708%	*capacity***				*capacity***				*capacity***			
			f5	192	100.000%			192	100.000%			192	100.000%			192	100.000%			*skipped*			
	foremost	image format integrity	jsteg	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
non-blind	imagemagick (compare, identify)	mean color of difference image	steghide	192	100.000%	2	0.260%	192	100.000%	1	0.130%	192	100.000%	1	0.130%	192	100.000%	1	0.130%	192	100.000%	1	0.174%
	stegoveritas, imagemagick (compare, identify)	mean color of stegoveritas-decomposition difference images	steghide	192	100.000%	33	4.297%	192	100.000%	16	2.083%	192	100.000%	16	2.083%	192	100.000%	16	2.083%	192	100.000%	10	1.736%
detection	stegbreak	stegbreak detection	jsteg	*skipped*		24	3.125%	*skipped*		22	2.865%	*skipped*		17	2.214%	*skipped*		17	2.214%	*skipped*		16	2.778%
			outguess-0.13	0	0.000%	23	2.995%	0	0.000%	18	2.344%	*capacity***		17	2.214%	*capacity***		20	2.604%	*capacity***		23	3.993%
		unexpected eof warning	jsteg	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
	stegdetect	stegdetect detection	jsteg	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
			outguess-0.13	1	0.521%	1	0.130%	30	15.625%			*capacity***				*capacity***							
	smartphone — 192 covers			sample set: **192 covers** — embeds: **3/5** — max. error: **576** — *skipped jsteg, f5, stegoveritas**				**192 covers** — **3/5** — **576**				**192 covers** — **3/5** — **576**				**192 covers** — **3/5** — **576**				**192 covers** — **3/5** — **576** — *skipped jsteg, f5, stegoveritas**			
blind	exiftool	file size	steghide	190	98.958%	89	15.451%	190	98.958%	84	14.583%	190	98.958%	70	12.153%	190	98.958%	70	12.153%	189	98.438%	70	12.153%
		JFIF version	jsteg	*skipped*		176	30.556%	*skipped*		176	30.556%	*skipped*		176	30.556%	*skipped*		176	30.556%	*skipped*		176	30.556%
	binwalk	data type	jsteg	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
		JFIF version	jsteg	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
	strings	file header	jsteg	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
			outguess-0.15	177	92.188%	210	36.458%	103	53.646%	208	36.111%	95	49.479%	195	33.854%	95	49.479%	198	34.375%	95	49.479%	198	34.375%
			outguess-0.13	190	98.958%	197	34.201%	189	98.438%	122	21.181%	178	92.708%	112	19.444%	181	94.271%	112	19.444%	181	94.271%	112	19.444%
			f5	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
	foremost	image format integrity	jsteg	*skipped*		1	0.174%	*skipped*		1	0.174%	*skipped*		1	0.174%	*skipped*		1	0.174%	*skipped*		1	0.174%
non-blind	imagemagick (compare, identify)	mean color of difference image	steghide	190	98.958%	25	4.340%	190	98.958%	23	3.993%	190	98.958%	9	1.563%	190	98.958%	9	1.563%	184	95.833%	9	1.563%
	stegoveritas, imagemagick (compare, identify)	mean color of stegoveritas-decomposition difference images	steghide	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
detection	stegbreak	stegbreak detection	jsteg	*skipped*		14	2.431%	*skipped*		10	1.736%	*skipped*		12	2.083%	*skipped*		15	2.604%	*skipped*		13	2.257%
			outguess-0.13	0	0.000%			0	0.000%			0	0.000%			0	0.000%			0	0.000%		
		unexpected eof warning	jsteg	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
	stegdetect	stegdetect detection	jsteg	*skipped*				*skipped*				*skipped*				*skipped*				*skipped*			
			outguess-0.13	1	0.521%	12	2.083%	1	0.521%	15	2.604%	39	20.313%	13	2.257%	42	21.875%	13	2.257%	46	23.958%	14	2.431%

*according to test protocol: skipped **jsteg** because it does not use keys; skipped **f5** because it does not support binary data nor high resoluted images; skipped **stegoveritas** because it does not support high resoluted images

embedding error: capacity exceeded; unfortunately no stego object is created by **outguess-0.15 and **outguess-0.13**

50 bytes key length

| | | | 67 bytes ASCII text | | | | 1.53kb ASCII text | | | | 17.5kb ASCII text | | | | 16kb min. entropy ASCII | | | | 16.8kb binary data | | | |
| | | | success | | fails | | success | | fails | | success | | fails | | success | | fails | | success | | fails | |
analysis-tools	attributes	stego-tool																				
alaska2 (640 covers)	sample set:	**640 covers**	embeds: 4/5	max. error: **2560**	skipped jsteg*		embeds: 4/5	max. error: **2560**	skipped jsteg*		embeds: 4/5	max. error: **2560**	skipped jsteg*		embeds: 4/5	max. error: **2560**	skipped jsteg*		embeds: 3/5	max. error: **1920**	skipped jsteg, f5*	
exiftool — file size — steghide			638	99.688%	1221	47.695%	638	99.688%	1082	42.266%	637	99.531%	667	26.055%	638	99.688%	667	26.055%	532	83.125%	426	22.188%
— JFIF version — jsteg			skipped				skipped				skipped				skipped				skipped			
binwalk — data type — jsteg			skipped				skipped				skipped				skipped				skipped			
— JFIF version — jsteg			skipped				skipped				skipped				skipped				skipped			
strings — file header — jsteg			skipped				skipped				skipped				skipped				skipped			
strings — file header — outguess-0.15			639	99.844%	1063	41.523%	476	74.375%	873	34.102%	capacity**		423	16.523%	capacity**		426	16.641%	capacity**		331	17.240%
strings — file header — outguess-0.13			637	99.531%	1065	41.602%	448	70.000%	901	35.195%	capacity**		423	16.523%	capacity**		426	16.641%	capacity**		331	17.240%
strings — file header — f5			640	100.000%			640	100.000%			640	100.000%			640	100.000%			skipped			
foremost — image format integrity — jsteg			skipped				skipped				skipped				skipped				skipped			
imagemagick (compare, identify) — mean color of difference image — steghide			640	100.000%	63	2.461%	639	99.844%	36	1.406%	632	98.750%	35	1.367%	640	100.000%	35	1.367%	117	18.281%	35	1.823%
stegoveritas, imagemagick (compare, identify) — mean color of stegoveritas-decomposition difference images — steghide			640	100.000%	279	10.898%	639	99.844%	121	4.727%	637	99.531%	114	4.453%	640	100.000%	114	4.453%	394	61.563%	108	5.625%
stegbreak — stegbreak detection — jsteg			skipped		86	3.359%	skipped		79	3.086%	skipped		56	2.188%	skipped		71	2.773%	skipped		47	2.448%
stegbreak — stegbreak detection — outguess-0.13			0	0.000%	4	0.156%	0	0.000%	5	0.195%	capacity**		3	0.117%	capacity**		4	0.156%	capacity**		4	0.208%
stegbreak — unexpected eof warning — jsteg			skipped				skipped				skipped				skipped				skipped			
stegdetect — stegdetect detection — jsteg			skipped				skipped				skipped				skipped				skipped			
stegdetect — stegdetect detection — outguess-0.13			9	1.406%	17	0.664%	100	15.625%	12	0.469%	capacity**		13	0.508%	capacity**		10	0.391%	capacity**		8	0.417%
bows2 (192 covers)	sample set:	**192 covers**	embeds: 4/5	max. error: **768**	skipped jsteg*		embeds: 4/5	max. error: **768**	skipped jsteg*		embeds: 4/5	max. error: **768**	skipped jsteg*		embeds: 4/5	max. error: **768**	skipped jsteg*		embeds: 3/5	max. error: **576**	skipped jsteg, f5*	
exiftool — file size — steghide			192	100.000%			192	100.000%			192	100.000%			192	100.000%			192	100.000%		
— JFIF version — jsteg			skipped				skipped				skipped				skipped				skipped			
binwalk — data type — jsteg			skipped				skipped				skipped				skipped				skipped			
— JFIF version — jsteg			skipped				skipped				skipped				skipped				skipped			
strings — file header — jsteg			skipped				skipped				skipped				skipped				skipped			
strings — file header — outguess-0.15			192	100.000%	192	25.000%	136	70.833%	131	17.057%	capacity**				capacity**				capacity**			
strings — file header — outguess-0.13			192	100.000%	192	25.000%	131	68.229%	136	17.708%	capacity**				capacity**				capacity**			
strings — file header — f5			192	100.000%			192	100.000%			192	100.000%			192	100.000%			skipped			
foremost — image format integrity — jsteg			skipped				skipped				skipped				skipped				skipped			
imagemagick (compare, identify) — mean color of difference image — steghide			192	100.000%	2	0.260%	192	100.000%	1	0.130%	192	100.000%	1	0.130%	192	100.000%	1	0.130%	192	100.000%	1	0.174%
stegoveritas, imagemagick (compare, identify) — mean color of stegoveritas-decomposition difference images — steghide			192	100.000%	33	4.297%	192	100.000%	16	2.083%	192	100.000%	16	2.083%	192	100.000%	16	2.083%	192	100.000%	10	1.736%
stegbreak — stegbreak detection — jsteg			skipped		26	3.385%	skipped		19	2.474%	skipped		11	1.432%	skipped		17	2.214%	skipped		13	2.257%
stegbreak — stegbreak detection — outguess-0.13			0	0.000%	20	2.604%	0	0.000%	23	2.995%	capacity**		27	3.516%	capacity**		20	2.604%	capacity**		19	3.299%
stegbreak — unexpected eof warning — jsteg			skipped				skipped				skipped				skipped				skipped			
stegdetect — stegdetect detection — jsteg			skipped				skipped				skipped				skipped				skipped			
stegdetect — stegdetect detection — outguess-0.13			3	1.563%	1	0.130%	26	13.542%			capacity**				capacity**		1	0.130%	skipped			
smartphone (192 covers)	sample set:	**192 covers**	embeds: 3/5	max. error: **576**	skipped jsteg, f5, stegoveritas*		embeds: 3/5	max. error: **576**	skipped jsteg, f5, stegoveritas*		embeds: 3/5	max. error: **576**	skipped jsteg, f5, stegoveritas*		embeds: 3/5	max. error: **576**	skipped jsteg, f5, stegoveritas*		embeds: 3/5	max. error: **576**	skipped jsteg, f5, stegoveritas*	
exiftool — file size — steghide			190	98.958%	89	15.451%	190	98.958%	84	14.583%	190	98.958%	70	12.153%	190	98.958%	70	12.153%	189	98.438%	70	12.153%
exiftool — JFIF version — jsteg			skipped		176	30.556%	skipped		176	30.556%	skipped		176	30.556%	skipped		176	30.556%	skipped		176	30.556%
binwalk — data type — jsteg			skipped				skipped				skipped				skipped				skipped			
— JFIF version — jsteg			skipped				skipped				skipped				skipped				skipped			
strings — file header — jsteg			skipped				skipped				skipped				skipped				skipped			
strings — file header — outguess-0.15			177	92.188%	210	36.458%	103	53.646%	208	36.111%	95	49.479%	195	33.854%	95	49.479%	198	34.375%	95	49.479%	198	34.375%
strings — file header — outguess-0.13			190	98.958%	197	34.201%	189	98.438%	122	21.181%	178	92.708%	112	19.444%	181	94.271%	112	19.444%	181	94.271%	112	19.444%
strings — file header — f5			skipped				skipped				skipped				skipped				skipped			
foremost — image format integrity — jsteg			skipped		1	0.174%	skipped		1	0.174%	skipped		1	0.174%	skipped		1	0.174%	skipped		1	0.174%
imagemagick (compare, identify) — mean color of difference image — steghide			190	98.958%	25	4.340%	190	98.958%	23	3.993%	190	98.958%	9	1.563%	190	98.958%	9	1.563%	184	95.833%	9	1.563%
stegoveritas, imagemagick (compare, identify) — mean color of stegoveritas-decomposition difference images — steghide			skipped				skipped				skipped				skipped				skipped			
stegbreak — stegbreak detection — jsteg			skipped		15	2.604%	skipped		13	2.257%	skipped		15	2.604%	skipped		15	2.604%	skipped		14	2.431%
stegbreak — stegbreak detection — outguess-0.13			0	0.000%	1	0.174%	0	0.000%	1	0.174%	0	0.000%			0	0.000%	1	0.174%	0	0.000%		
stegbreak — unexpected eof warning — jsteg			skipped				skipped				skipped				skipped				skipped			
stegdetect — stegdetect detection — jsteg			skipped				skipped				skipped				skipped				skipped			
stegdetect — stegdetect detection — outguess-0.13			1	0.521%	13	2.257%	3	1.563%	15	2.604%	43	22.396%	13	2.257%	39	20.313%	13	2.257%	38	19.792%	14	2.431%

*according to test protocol: skipped **jsteg** because it does not use keys; skipped **f5** because it does not support binary data nor high resoluted images; skipped **stegoveritas** because it does not support high resoluted images

embedding error: capacity exceeded; unfortunately no stego object is created by **outguess-0.15 and **outguess-0.13**