

SUPPLEMENTARY MATERIAL

PROPAGANDA AND COMBAT MOTIVATION Radio Broadcasts and German Soldiers' Performance in World War II

By Benjamin Barber IV and Charles Miller

World Politics

doi: 10.1017/S0043887118000345

Replication data are available at:

Barber, Benjamin, IV, and Charles Miller. 2019. "Replication Data for: Propaganda and Combat Motivation: Radio Broadcasts and German Soldiers' Performance in World War II." Harvard Dataverse, V1. doi: 10.7910/DVN/LVFRCL.

1 Descriptive Statistics

Table 1: Summary Statistics for Key Variables

		N	Mean	St. Dev.	Min	Max
Main IVs	Radio Signal Strength (dB)	15,421	85.985	15.807	42.426	235.657
	Radio Signal Strength Log Transformation	15,421	4.440	0.165	3.748	5.462
Continuous	Nazi Vote Share	16,378	15.958	8.181	1.010	49.950
	Muster Age (relative to 18)	14,734	4.691	6.355	-6.638	26.386
	Height (relative to mean)	15,412	0	0.064	-0.306	0.284
	Weight (relative to mean)	15,209	0	8.272	-33.111	80.889
	# of Punishments	18,537	0.250	0.900	0	21
	# of Medals	18,537	0.846	1.415	0	12
Ordinal	Economic Class	16,297	2.180	0.772	1	4
	Human Capital	12,447	1.501	1.039	1	6
Binary	Nazi Party Member	18,537	0.426	0.495	0	1
	Catholic	18,537	0.517	0.500	0	1
	Married	18,537	0.358	0.479	0	1
	Wounded	18,537	0.101	0.302	0	1
	KIA	18,536	0.126	0.332	0	1
	Decorated	18,537	0.287	0.452	0	1
	POW	18,537	0.040	0.197	0	1
	Punished	18,537	0.132	0.339	0	1
	Severe Punishment	18,537	0.010	0.099	0	1
	High Medal	18,537	0.158	0.365	0	1
Urban	18,537	0.172	0.377	0	1	
Kreis Level	Log(Population of Birthplace)	15,093	10.882	0.801	7.918	13.893
	Welfare Participants per 1000	16,231	26.860	11.123	3.500	100.600
	War Participants per 1000	16,231	0.733	1.201	0.000	22.162
	Social Renters per 1000	16,231	8.021	3.289	0.097	36.879
	Log(Distance to Big City)	16,302	8.954	1.369	3.835	12.035
	Log(Property Tax)	14,316	6.156	0.814	2.805	8.446
	% Jewish 1925	14,386	0.006	0.005	0.000	0.050
	% Catholic 1925	14,386	0.581	0.312	0.004	0.996
	Share of White Collar Workers 1925	14,386	0.143	0.058	0.027	0.364
	Share of Blue Collar Workers 1925	14,386	0.469	0.183	0.132	1.610
	Share of Unemployed 1933	14,386	0.095	0.038	0.000	0.223
	Share of Partially Unemployed 1933	14,386	0.083	0.024	0.000	0.238

2 Radio Tower Information

We derive all of our information about German radio towers from Brudnjak’s 2010 book on radio coverage of Germany from 1923 to 1945. According to Brudnjak (2010), there were twenty-eight cities that had radio towers in operation before the end of the war in 1945. Table 2 presents information on how long each city had a radio tower operational. According to Brudnjak (2010) only Berlin had multiple towers during our time period, from 1933 to 1934. To simplify we chose the most powerful/tallest tower as the sole radio tower in Berlin. Of all the radio towers constructed, only four new were built after Hitler’s rise to Chancellor: Koblenz, Reichenbach, Saarbrucken, and Stolp. While Trier was built in 1933, its construction was finished in February of 1933, 19 days after Hitler was appointed Chancellor and therefore is counted as being constructed before Hitler’s rise to power.

Table 2: Nazi Radio Towers: Descriptive Information

City	Longitude	Latitude	First Year of Radio Tower	Last Year of Radio Tower	Current State
Augsburg	10.8936	48.3700	1927	1935	Bayern
Berlin	13.2923	52.5593	1923	1945	Berlin
Bremen	8.7945	53.0913	1924	1945	Bremen
Breslau	17.0359	50.9818	1924	1945	Warclaw, Poland
Danzig	18.6457	54.3495	1926	1945	Gdansk, Poland
Dresden	13.7404	51.0485	1925	1945	Sachsen
Flensburg	9.4529	54.7897	1928	1945	Schleswig-Holstein
Frankfurt	8.7203	50.1634	1924	1945	Hessen
Freiburg	7.8165	48.0081	1926	1945	Baden-Wuerttemberg
Gleiwitz	18.5092	50.3014	1925	1945	Gliwice, Poland
Hamburg	10.0996	53.5155	1924	1945	Hamburg
Hannover	9.7112	52.4028	1924	1945	Niedersachsen
Heilsberg	20.5644	54.1389	1930	1945	Lidzbark Warminski, Poland
Kaiserslautern	7.8942	49.4421	1928	1945	Rheinland-Pfalz
Kassel	9.4793	51.3127	1925	1945	Hessen
Koblenz	7.5915	50.3680	1935	1945	Rheinland-Pfalz
Konigsberg	20.4239	54.7308	1924	1945	Kaliningrad Oblast, Russia
Langenberg	8.2399	51.7636	1927	1945	Nordrhein-Westfalen
Leipzig	12.2854	51.1925	1924	1945	Sachsen
Magdeburg	11.6317	52.1330	1928	1944	Sachsen-Anhalt
Munchen	11.6739	48.2262	1924	1945	Bayern
Nurnberg	11.0710	49.4708	1924	1945	Bayern
Reichenbach	12.3008	50.6164	1937	1945	Sachsen
Saarbrucken	6.9281	49.3365	1935	1945	Saarland
Stettin	14.5433	53.4277	1925	1945	Szczecin, Poland
Stolp	17.0296	54.4638	1938	1945	Slupsk, Poland
Stuttgart	8.8528	48.9476	1924	1945	Baden-Wuerttemberg
Trier	6.6383	49.7506	1933	1945	Rheinland-Pfalz

3 S-Curved Radio Signal Strength

In our analysis we've used signal strength as defined by the FCC as our proxy for exposure to Nazi propaganda (FCC, 2002).¹ However, as pointed out by prior work by Adena et al. (2015), the ability to hear a radio broadcast might not be linearly related to radio signal strength. Once people can hear the radio broadcast, there is little benefit to increasing the radio signal strength. For example, to clearly hear a radio broadcast it makes little difference if you live 1km from a radio tower or 0.25km from a radio tower. Likewise, once people cannot hear a radio broadcast, having less signal strength does not matter. Therefore, the argument is that radio signal strength only really matters in the middle, where the likelihood of being able to hear the radio really depends upon signal strength.

While reasonable, in actuality it is more complicated. Someone's ability to hear to a radio broadcast depends upon the quality of the signal *and* the quality of the receiver. Therefore two people exposed to the same radio signal strength might or might not be able to hear depending upon the quality of their receiver. In our case, this is somewhat mitigated due to the limited technology of radio receivers in the 1940s. But this means we cannot calculate a definitive "cut-off" point at which someone was unable to receive the radio signal. A naive guess would be to think that a negative signal strength would mean that it would be impossible to receive a radio broadcast, but this is also mistaken, since signal strength is measured in decibels' logarithmic scale. This means that even someone with "negative" signal strength can listen to a radio broadcast. We can even see this in Adena et al.'s (2015) study which records listeners even with negative radio signal strength. However, the conceptual point still stands. We might want to discount very high signal strengths and very low signal strengths from each other. Adena et al. (2015) accomplish this by approximating signal strength by a generalized logistic transformation between two variables: radio subscriptions at the Kreis-level of 1931 and signal strength of radio towers to the centroid of each Kreis.

This technique is problematic for our study. First, we do not have listenership data across all of the time frames of our sample, therefore we cannot recreate this measure accurately. There is also an ecological problem in recreating the measure, since we we're interested in individuals and not at the Kreis level. Second, only using Adena et al. (2015) listenership data for 1931 is not sufficient since we are interested in measuring each soldier's propaganda exposure is from 1933 onwards. Several radio towers were built after 1931, and others were removed, thus changing the signal strength of radio broadcasts from 1931 to 1933 and beyond. The most important example of this for our work, according Brudnjak (2010), is the removal of the radio tower in Köln in 1932. Since most of our data is clustered in the Nordrhein-Westfalen region, assuming there was a radio broadcast in Köln in 1931 would alter our sample of signal strength. If we used listenership data from 1931 we would be inaccurately attributing signal strength to soldiers who did not receive propaganda broadcasts from 1933 and beyond.

¹The equation is $\text{Signal Strength} = 106.92 + 10 \times \log_{10}(\text{Tower Strength}) - 20 \times \log_{10}(\text{Distance}) - \text{Signal Loss}$, to which we add 107db to convert it from TV to FM radio and eliminate negative values which ease interpretation of the coefficients. Although the results are exactly the same regardless if we do not add an additional 107db.

Table 3: Radio Tower Distance and Soldier Decorations – S-Curve Radio Signal Strength

	Dependent Variable:					
	SOLDIER IS DECORATED		High Decoration		# of Decorations	
	(1)	(2)	(3)	(4)	(5)	(6)
SIGNAL STRENGTH						
S-CURVED	0.048** (0.018)	0.051* (0.026)	0.014 (0.014)	0.009 (0.023)	0.078* (0.037)	0.076 (0.064)
ENLISTMENT AGE <i>Relative to 18</i>	-0.015*** (0.001)	-0.011*** (0.002)	-0.010*** (0.001)	-0.011*** (0.002)	-0.032*** (0.002)	-0.032*** (0.005)
WOUNDED <i>Dummy: 1 for Being Wounded</i>	0.407*** (0.014)	0.351*** (0.019)	0.288*** (0.012)	0.262*** (0.017)	1.066*** (0.074)	0.986*** (0.074)
NAZI PARTY MEMBER <i>Dummy: 1 for Member of SS, Brownshirts, or Nazi Party</i>	-0.004 (0.014)	-0.012 (0.022)	-0.004 (0.012)	-0.002 (0.020)	-0.049 (0.035)	-0.029 (0.050)
INTERCEPT	0.673** (0.149)	0.849** (0.231)	0.324 (0.122)	0.361* (0.204)	0.683* (0.311)	1.008* (0.496)
COMPANY FIXED EFFECTS		✓		✓		✓
ENLISTMENT YEAR FIXED EFFECTS	✓	✓	✓	✓	✓	✓
KREIS LEVEL CONTROLS	✓	✓	✓	✓	✓	✓
INDIVIDUAL CONTROLS	✓	✓	✓	✓	✓	✓
# OF SOLDIERS	9072	4492	9072	4492	9072	4492
R ²	0.194	0.222	0.140	0.166	0.216	0.264

KREIS LEVEL CONTROLS include: the fifth-order polynomial of population, the share of Jewish and Catholic population in 1933, the share of unemployed and partially employed in 1933, the share of white and blue collar workers in 1925, the logged distance to the closest city, the percentage of Nazi vote in 1933, the logged average property tax in 1930, and the # of welfare recipients, social renters, & war participants per 1000 people. INDIVIDUAL CONTROLS include: whether the soldier was Catholic or married, the soldier's economic class, a dummy for living in a large city, and their relative height and weight. Kreise clustered standard errors in parentheses: *** indicates $p \leq .01$, ** indicates $p \leq .05$, * indicates $p \leq .1$

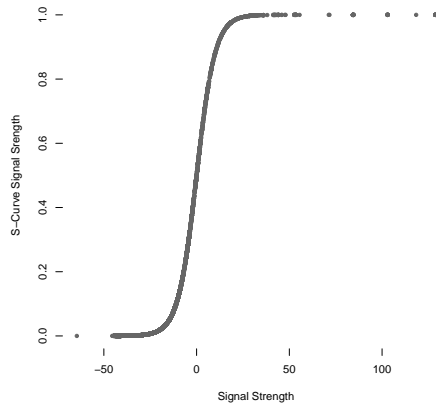


Figure 1: Radio Signal S-Curve Conversion

Instead we attempt to address the issue by transforming radio signal through an inverse-logit. Figure 1 shows what this looks like for our sample. It has a similar breakpoint around 0 to what Adena et al. (2015) find in their study, although ours is much more severe since it is not the byproduct of a post-estimated regression. This measure is still a rough approximation. There is no real ability to know where exactly the “cut off” point will be where people will no longer be able to listen. However, it is another robustness check to see if our are driven by those that can hear the broadcast and those who cannot.

Table 3 shows our results when using the S-curve for decorations and punishments respectively. Models (1) & (2) on Table 3 shows that signal strength is still positively associated with decorations with or without company fixed effects. The findings for number of decorations again mimics our results in our paper, where the sign is positive and significant without company fixed effects but loses its significance with company fixed effects. Mimicking our main results, we find that number of punishments continues only to be significant when controlling for company fixed effects. Overall our results are largely congruent with our main findings.

4 Killed in Action, Wounds, & Radio Signal Strength

In our paper we argue that indoctrinated soldiers will be more motivated soldiers. We test our argument by looking at how soldiers were exposed to Nazi propaganda by through radio broadcasts and see if soldiers were more likely to receive more decorations and less punishments. We find evidence that soldiers who were more exposed to Nazi broadcasts were more likely to receive decorations. However if soldiers who were more exposed to radio broadcasts were also more likely to be exposed to more combat, this could potentially bias our results. Therefore we rerun our analysis looking at if soldiers with increased exposure to radio broadcasts are more likely to be wounded or killed in action.

Table 4 shows our results. The first four models look at signal strength’s effect on a soldier’s propensity to be wounded, while the last four models show signal strength’s effect on a soldier’s propensity to be killed during combat. Overall, we find no relationship between deaths or wounds and signal strength.

Table 4: Radio Tower Signal and Other Factors

	Dependent Variable:							
	(1)	SOLDIER IS WOUNDED		(4)	(5)	SOLDIER IS KIA		(8)
		(2)	(3)			(6)	(7)	
SIGNAL STRENGTH								
LINEAR	-0.0001 (0.0002)		-0.0001 (0.0003)		-0.0004 (0.0005)		-0.0000 (0.0004)	
LOG TRANSFORMED		-0.0049 (0.0188)		-0.0120 (0.0274)		-0.0411 (0.0368)		0.0014 (0.0452)
ENLISTMENT AGE <i>Relative to 18</i>	-0.0062*** (0.0007)	-0.0062*** (0.0007)	-0.0075*** (0.0013)	-0.0075*** (0.0013)	-0.0051*** (0.0007)	-0.0051*** (0.0007)	-0.0046*** (0.0014)	-0.0047*** (0.0014)
NAZI PARTY MEMBER <i>SS, Brownshirts, or Nazi Party</i>	-0.0001 (0.0113)	-0.0001 (0.0113)	-0.0021 (0.0162)	-0.0021 (0.0162)	0.0040 (0.0128)	0.0040 (0.0128)	0.0066 (0.0165)	0.0065 (0.0165)
INTERCEPT	-0.0636 (0.0736)	-0.0498 (0.122)	-0.365*** (0.0942)	-0.325** (0.156)	0.0183 (0.114)	0.169 (0.214)	-0.141 (0.149)	-0.149 (0.266)
COMPANY FIXED EFFECTS		✓		✓		✓		✓
ENLISTMENT YEAR CONTROLS	✓	✓	✓	✓	✓	✓	✓	✓
KREIS LEVEL CONTROLS	✓	✓	✓	✓	✓	✓	✓	✓
INDIVIDUAL CONTROLS	✓	✓	✓	✓	✓	✓	✓	✓
# OF SOLDIERS	9072	9072	4492	4492	9072	9072	4492	4492
R ²	0.0307	0.0307	0.0770	0.0770	0.0283	0.0283	0.0782	0.0782

KREISE LEVEL CONTROLS include: the fifth-order polynomial of population, the share of Jewish and Catholic population in 1933, the share of unemployed and partially employed in 1933, the share of white and blue collar workers in 1925, the logged distance to the closest city, the percentage of Nazi vote in 1933, the logged average property tax in 1930, and the # of welfare recipients , social renters, & war participants per 1000 people.

INDIVIDUAL CONTROLS include: whether the soldier was Catholic or married, the soldier’s economic class, a dummy for living in a large city, and their relative height and weight.

Kreise clustered standard errors in parentheses: *** indicates $p \leq .01$, ** indicates $p \leq .05$, * indicates $p \leq .1$

5 Distance

In our primary analysis we use radio signal strength as a proxy for exposure to propaganda. Since radio signal strength and distance to the closest tower are correlated, we use distance as an alternative measure for exposure to propaganda. Since radio signal strength is a very abstract concept, this also helps with a more intuitive counterfactual when doing post-estimated simulations. We investigate a few operationalizations of distance to the closest radio tower and its impact on our dependent variables, and find very similar results.

In Table 5 we operationalize exposure to propaganda as the distance in kilometers, and the logged distance, to the closest radio tower. The intuition being: the closer to a radio tower, the more likely you are to get a clear signal. Here the results for decorations largely mimics our main results: the farther a soldier is from a radio tower, the less likely they will receive a medal for valor.

Finally, in Table 6 we operationalize exposure to propaganda with distance in a non-linear way. We break up our sample into terciles, measuring those soldiers who are close, middle, and far away from radio towers. We create dummy variables for each of these groups, and included them within our regressions. From this analysis, we find that distance behaves mostly as we would expect. Those who are in the “middle” and “far” category are less likely to receive decorations. These non-linear tests of distance mimic those found in our main findings.

Table 5: Radio Tower Distance and Soldier Decorations

	Dependent Variable:					
	Soldier is Decorated (1)	High Decoration (2)	# of Decorations (3)	Soldier is Decorated (4)	High Decoration (5)	# of Decorations (6)
DISTANCE FROM CLOSEST RADIO TOWER <i>in Kilometers</i>	-0.0004*** (0.0001)	-0.0002** (0.0001)	-0.0008*** (0.0003)			
DISTANCE FROM CLOSEST RADIO TOWER <i>in Logged Kilometers</i>				-0.0190*** (0.0070)	-0.0085 (0.0055)	-0.0310** (0.0138)
ENLISTMENT AGE <i>Relative to 18</i>	-0.0146*** (0.00110)	-0.00986*** (0.000885)	-0.0320*** (0.00243)	-0.0147*** (0.00109)	-0.00995*** (0.000873)	-0.0323*** (0.00241)
WOUNDED <i>Dummy: 1 for Being Wounded in Combat</i>	0.407*** (0.0168)	0.289*** (0.0177)	1.081*** (0.0624)	0.407*** (0.0167)	0.289*** (0.0177)	1.081*** (0.0624)
NAZI MEMBERSHIP <i>Dummy: 1 for Member of SS, Brownshirts, or Nazi Party</i>	-0.0056 (0.0131)	-0.0064 (0.0112)	-0.0302 (0.0296)	-0.0053 (0.0132)	-0.0061 (0.0111)	-0.0296 (0.0296)
INTERCEPT	0.240** (0.105)	0.0803 (0.0749)	0.406* (0.214)	0.276** (0.107)	0.0929 (0.0774)	0.462** (0.213)
ENLISTMENT YEAR FIXED EFFECTS	✓	✓	✓	✓	✓	✓
KREIS LEVEL CONTROLS	✓	✓	✓	✓	✓	✓
INDIVIDUAL CONTROLS	✓	✓	✓	✓	✓	✓
# OF SOLDIERS	9059	9059	9059	9059	9059	9059
R ²	0.194	0.141	0.219	0.193	0.140	0.219

KREISE LEVEL CONTROLS include: the fifth-order polynomial of population, the share of Jewish and Catholic population in 1933, the share of unemployed and partially employed in 1933, the share of white and blue collar workers in 1925, the logged distance to the closest city, the percentage of Nazi vote in 1933, the logged average property tax in 1930, and the # of welfare recipients, social renters, & war participants per 1000 people.

INDIVIDUAL CONTROLS include: whether the soldier was Catholic or married, the soldier’s economic class, a dummy for living in a large city, and their relative height and weight.

Kreise clustered standard errors in parentheses: *** indicates $p \leq .01$, ** indicates $p \leq .05$, * indicates $p \leq .1$

Table 6: Non-Linear Radio Tower Distance and Soldier Decorations

	Dependent Variable:		
	Soldier is Decorated (1)	High Decoration (2)	# of Decorations (3)
MIDDLE <i>Second Tercile of Distance</i>	-0.0250* (0.0128)	-0.00421 (0.0108)	-0.0333 (0.0236)
FAR AWAY <i>Third Tercile of Distance</i>	-0.0465*** (0.0128)	-0.0236** (0.0100)	-0.0784*** (0.0252)
ENLISTMENT AGE <i>Relative to 18</i>	-0.0145*** (0.0009)	-0.0099*** (0.0008)	-0.0316*** (0.0022)
WOUNDED <i>Dummy: 1 for Being Wounded in Combat</i>	0.406*** (0.0169)	0.288*** (0.0178)	1.080*** (0.0626)
NAZI MEMBERSHIP <i>Dummy: 1 for Member of SS, Brownshirts, or Nazi Party</i>	-0.0055 (0.0131)	-0.0063 (0.0112)	-0.0300 (0.0295)
INTERCEPT	0.227** (0.101)	0.0681 (0.0729)	0.379* (0.209)
ENLISTMENT YEAR FIXED EFFECTS	✓	✓	✓
KREIS LEVEL CONTROLS	✓	✓	✓
INDIVIDUAL CONTROLS	✓	✓	✓
# OF SOLDIERS	9059	9059	9059
R ²	0.194	0.141	0.220

KREISE LEVEL CONTROLS include: the fifth-order polynomial of population, the share of Jewish and Catholic population in 1933, the share of unemployed and partially employed in 1933, the share of white and blue collar workers in 1925, the logged distance to the closest city, the percentage of Nazi vote in 1933, the logged average property tax in 1930, and the # of welfare recipients, social renters, & war participants per 1000 people.

INDIVIDUAL CONTROLS include: whether the soldier was Catholic or married, the soldier's economic class, a dummy for living in a large city, and their relative height and weight.

Kreise clustered standard errors in parentheses: *** indicates $p \leq .01$, ** indicates $p \leq .05$, * indicates $p \leq .1$

6 Nordrhein-Westfalen Only

Table 7: Radio Tower Signal and Soldier Decorations: Nordrhein-Westfalen Only

	Dependent Variable:					
	SOLDIER IS DECORATED		HIGH DECORATION		# OF DECORATIONS	
	(1)	(2)	(3)	(4)	(5)	(6)
SIGNAL STRENGTH						
LINEAR	0.0017*** (0.0003)		0.0006** (0.0003)		0.0019*** (0.0006)	
LOGIT TRANSFORMED		0.159*** (0.0332)		0.0555** (0.0271)		0.195*** (0.0624)
ENLISTMENT AGE <i>Relative to 18</i>	-0.0153*** (0.0011)	-0.0153*** (0.0011)	-0.0107*** (0.0010)	-0.0107*** (0.0010)	-0.0342*** (0.0026)	-0.0342*** (0.0026)
WOUNDED <i>Dummy: 1 for Being Wounded in Combat</i>	0.392*** (0.0184)	0.392*** (0.0184)	0.292*** (0.0201)	0.292*** (0.0201)	1.075*** (0.0732)	1.075*** (0.0732)
NAZI MEMBERSHIP <i>Dummy: 1 for Member of SS, Brownshirts, or Nazi Party</i>	0.0022 (0.0145)	0.0021 (0.0145)	0.0075 (0.0126)	0.0075 (0.0126)	-0.0037 (0.0343)	-0.0039 (0.0343)
INTERCEPT	-0.0708 (0.112)	-0.638*** (0.170)	-0.0347 (0.0819)	-0.234* (0.135)	0.0371 (0.256)	-0.664* (0.350)
ENLISTMENT YEAR FIXED EFFECTS	✓	✓	✓	✓	✓	✓
KREIS LEVEL CONTROLS	✓	✓	✓	✓	✓	✓
INDIVIDUAL CONTROLS	✓	✓	✓	✓	✓	✓
# OF SOLDIERS	7474	7474	7474	7474	7474	7474
R ²	0.194	0.194	0.143	0.143	0.221	0.221

KREIS LEVEL CONTROLS include: the fifth-order polynomial of population, the share of Jewish and Catholic population in 1933, the share of unemployed and partially employed in 1933, the share of white and blue collar workers in 1925, the logged distance to the closest city, the percentage of Nazi vote in 1933, the logged average property tax in 1930, and the # of welfare recipients, social renters, & war participants per 1000 people. INDIVIDUAL CONTROLS include: whether the soldier was Catholic or married, the soldier's economic class, a dummy for living in a large city, and their relative height and weight. Kreise clustered standard errors in parentheses: *** indicates $p \leq .01$, ** indicates $p \leq .05$, * indicates $p \leq .1$

7 Only Soldiers Exposed to Radio Towers Built Before Hitler's Rise to Power

Table 8: Radio Tower Signal, Class, and Soldier Decorations

	Dependent Variable:							
	SOLDIER IS DECORATED			HIGH DECORATION		# OF DECORATIONS		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SIGNAL STRENGTH								
LINEAR	0.0009*** (0.0003)	0.0009** (0.0004)			0.0012** (0.0005)	0.0009 (0.0009)		
LOG TRANSFORMED			0.0974*** (0.0275)	0.0945** (0.0421)			0.133** (0.0525)	0.104 (0.0929)
ENLISTMENT AGE <i>Relative to 18</i>	-0.0149*** (0.0010)	-0.0114*** (0.0022)	-0.0148*** (0.0010)	-0.0113*** (0.0022)	-0.0327*** (0.0022)	-0.0337*** (0.0048)	-0.0326*** (0.0022)	-0.0337*** (0.0048)
WOUNDED <i>Dummy: 1 for Being Wounded</i>	0.402*** (0.0170)	0.345*** (0.0170)	0.402*** (0.0170)	0.344*** (0.0170)	1.084*** (0.0661)	1.007*** (0.0669)	1.084*** (0.0661)	1.007*** (0.0669)
NAZI MEMBERSHIP <i>Member of SS, Brownshirts, or Nazi Party</i>	-0.0058 (0.0136)	0.0010 (0.0184)	-0.0059 (0.0136)	0.0009 (0.0184)	-0.0291 (0.0311)	0.0147 (0.0446)	-0.0293 (0.0310)	0.0144 (0.0446)
INTERCEPT	0.548*** (0.159)	0.441** (0.185)	0.193 (0.190)	0.100 (0.270)	0.969*** (0.289)	0.156 (0.399)	0.475 (0.376)	-0.224 (0.590)
COMPANY FIXED EFFECTS		✓	✓	✓	✓	✓	✓	✓
ENLISTMENT YEAR FIXED EFFECTS	✓	✓	✓	✓	✓	✓	✓	✓
KREIS LEVEL CONTROLS	✓	✓	✓	✓	✓	✓	✓	✓
INDIVIDUAL CONTROLS	✓	✓	✓	✓	✓	✓	✓	✓
# OF SOLDIERS	8570	4381	8570	4381	8570	4381	8570	4381
R ²	0.193	0.220	0.193	0.220	0.221	0.270	0.221	0.270

KREIS LEVEL CONTROLS include: the fifth-order polynomial of population, the share of Jewish and Catholic population in 1933, the share of unemployed and partially employed in 1933, the share of white and blue collar workers in 1925, the logged distance to the closest city, the percentage of Nazi vote in 1933, the logged average property tax in 1930, and the # of welfare recipients, social renters, & war participants per 1000 people. INDIVIDUAL CONTROLS include: whether the soldier was Catholic or married, the soldier's economic class, a dummy for living in a large city, and their relative height and weight. Kreise clustered standard errors in parentheses: *** indicates $p \leq .01$, ** indicates $p \leq .05$, * indicates $p \leq .1$

8 Maximum Radio Signal Strength Exposure

Table 9: Maximum Radio Tower Signal and Soldier Decorations

	Dependent Variable:					
	SOLDIER IS DECORATED		HIGH DECORATION		# OF DECORATIONS	
	(1)	(2)	(3)	(4)	(5)	(6)
MAX SIGNAL STRENGTH						
LINEAR	0.0009*** (0.0003)		0.0003 (0.0002)		0.0012** (0.0005)	
LOGIT TRANSFORMED		0.0962*** (0.0270)		0.0318 (0.0211)		0.136*** (0.0502)
ENLISTMENT AGE <i>Relative to 18</i>	-0.0146*** (0.0009)	-0.0145*** (0.0009)	-0.0101*** (0.0008)	-0.0101*** (0.0008)	-0.0319*** (0.0022)	-0.0318*** (0.0022)
WOUNDED <i>Dummy: 1 for Being Wounded in Combat</i>	0.407*** (0.0167)	0.407*** (0.0167)	0.288*** (0.0178)	0.288*** (0.0178)	1.080*** (0.0626)	1.079*** (0.0626)
NAZI MEMBERSHIP <i>Dummy: 1 for Member of SS, Brownshirts, or Nazi Party</i>	-0.0045 (0.0131)	-0.0046 (0.0131)	-0.0038 (0.0113)	-0.0038 (0.0113)	-0.0254 (0.0298)	-0.0256 (0.0297)
INTERCEPT	0.0646 (0.104)	-0.284* (0.160)	-0.0028 (0.0732)	-0.121 (0.115)	0.118 (0.219)	-0.381 (0.322)
ENLISTMENT YEAR FIXED EFFECTS	✓	✓	✓	✓	✓	✓
KREIS LEVEL CONTROLS	✓	✓	✓	✓	✓	✓
INDIVIDUAL CONTROLS	✓	✓	✓	✓	✓	✓
# OF SOLDIERS	9072	9072	9072	9072	9072	9072
R ²	0.194	0.194	0.140	0.140	0.219	0.219

KREIS LEVEL CONTROLS include: the fifth-order polynomial of population, the share of Jewish and Catholic population in 1933, the share of unemployed and partially employed in 1933, the share of white and blue collar workers in 1925, the logged distance to the closest city, the percentage of Nazi vote in 1933, the logged average property tax in 1930, and the # of welfare recipients, social renters, & war participants per 1000 people.

INDIVIDUAL CONTROLS include: whether the soldier was Catholic or married, the soldier's economic class, a dummy for living in a large city, and their relative height and weight.

Kreise clustered standard errors in parentheses: *** indicates $p \leq .01$, ** indicates $p \leq .05$, * indicates $p \leq .1$

Table 10: Maximum Radio Tower Signal and Soldier Decorations - Company Fixed Effects

	Dependent Variable:					
	SOLDIER IS DECORATED		HIGH DECORATION		# OF DECORATIONS	
	(1)	(2)	(3)	(4)	(5)	(6)
MAX SIGNAL STRENGTH						
LINEAR	0.0008* (0.0004)		-0.0001 (0.0003)		0.0007 (0.0008)	
LOGIT TRANSFORMED		0.0794* (0.0418)		-0.00211 (0.0368)		0.0769 (0.0910)
ENLISTMENT AGE <i>Relative to 18</i>	-0.0111*** (0.0021)	-0.0111*** (0.0021)	-0.0112*** (0.0018)	-0.0112*** (0.0018)	-0.0325*** (0.0046)	-0.0324*** (0.0046)
WOUNDED <i>Dummy: 1 for Being Wounded in Combat</i>	0.350*** (0.0168)	0.350*** (0.0168)	0.261*** (0.0200)	0.261*** (0.0200)	1.001*** (0.0657)	1.001*** (0.0657)
NAZI MEMBERSHIP <i>Dummy: 1 for Member of SS, Brownshirts, or Nazi Party</i>	-0.0007 (0.0182)	-0.0008 (0.0182)	-0.0017 (0.0168)	-0.0017 (0.0168)	0.0070 (0.0437)	0.0069 (0.0437)
INTERCEPT	-0.532*** (0.157)	-0.817*** (0.244)	-0.304** (0.119)	-0.299 (0.192)	-0.910*** (0.337)	-1.191** (0.542)
ENLISTMENT YEAR FIXED EFFECTS	✓	✓	✓	✓	✓	✓
KREIS LEVEL CONTROLS	✓	✓	✓	✓	✓	✓
INDIVIDUAL CONTROLS	✓	✓	✓	✓	✓	✓
# OF SOLDIERS	4492	4492	4492	4492	4492	4492
R ²	0.222	0.222	0.166	0.166	0.267	0.267

KREIS LEVEL CONTROLS include: the fifth-order polynomial of population, the share of Jewish and Catholic population in 1933, the share of unemployed and partially employed in 1933, the share of white and blue collar workers in 1925, the logged distance to the closest city, the percentage of Nazi vote in 1933, the logged average property tax in 1930, and the # of welfare recipients, social renters, & war participants per 1000 people.

INDIVIDUAL CONTROLS include: whether the soldier was Catholic or married, the soldier's economic class, a dummy for living in a large city, and their relative height and weight.

Kreise clustered standard errors in parentheses: *** indicates $p \leq .01$, ** indicates $p \leq .05$, * indicates $p \leq .1$

9 Human Capital

Table 11: Radio Tower Signal and Decorations: Human Capital

	Dependent Variable:							
	(1)	DECORATED				# OF MEDALS		(8)
		(2)	(3)	(4)	(5)	(6)	(7)	
SIGNAL STRENGTH								
LINEAR	0.0009*** (0.0003)	0.0005 (0.0004)			0.0011* (0.0006)	0.0003 (0.0009)		
LOG TRANSFORMED			0.0950*** (0.0293)	0.0578 (0.0418)			0.115* (0.0588)	0.0315 (0.101)
ENLISTMENT AGE <i>Relative to 18</i>	-0.0134*** (0.0011)	-0.0121*** (0.0026)	-0.0134*** (0.0011)	-0.0120*** (0.0026)	-0.0301*** (0.0025)	-0.0347*** (0.0057)	-0.0301*** (0.0025)	-0.0347*** (0.0057)
WOUNDED <i>Dummy: 1 for Being Wounded</i>	0.418*** (0.0162)	0.363*** (0.0200)	0.418*** (0.0162)	0.363*** (0.0201)	1.094*** (0.0610)	1.023*** (0.0722)	1.094*** (0.0610)	1.023*** (0.0722)
NAZI PARTY MEMBER <i>SS, Brownshirts, or Nazi Party</i>	-0.0154 (0.0168)	-0.0049 (0.0248)	-0.0156 (0.0167)	-0.00507 (0.0248)	-0.0119 (0.0354)	0.0440 (0.0610)	-0.0122 (0.0354)	0.0439 (0.0610)
INTERCEPT	0.0224 (0.115)	0.704*** (0.218)	-0.322* (0.178)	0.494* (0.290)	-0.0353 (0.249)	0.585 (0.461)	-0.459 (0.363)	0.467 (0.613)
COMPANY FIXED EFFECTS		✓		✓		✓		✓
ENLISTMENT YEAR CONTROLS	✓	✓	✓	✓	✓	✓	✓	✓
KREISE LEVEL CONTROLS	✓	✓	✓	✓	✓	✓	✓	✓
INDIVIDUAL CONTROLS	✓	✓	✓	✓	✓	✓	✓	✓
# OF SOLDIERS	6943	3151	6943	3151	6943	3151	6943	3151
R ²	0.195	0.241	0.195	0.241	0.229	0.288	0.229	0.288

KREISE LEVEL CONTROLS include: the fifth-order polynomial of population, the share of Jewish and Catholic population in 1933, the share of unemployed and partially employed in 1933, the share of white and blue collar workers in 1925, the logged distance to the closest city, the percentage of Nazi vote in 1933, the logged average property tax in 1930, and the # of welfare recipients, social renters, & war participants per 1000 people.

INDIVIDUAL CONTROLS include: whether the soldier was Catholic or married, the soldier's economic class, a dummy for living in a large city, and their relative height and weight.

Kreise clustered standard errors in parentheses: *** indicates $p \leq .01$, ** indicates $p \leq .05$, * indicates $p \leq .1$

10 First Rank and Combat Unit Service

Table 12: Effects of Signal Strength on First Rank and Combat Unit Service

	Dependent Variable:			
	FIRST RANK IN MILITARY		SERVED IN COMBAT UNIT	
	<i>OLS</i>	<i>OLS</i>	<i>Logit</i>	<i>Logit</i>
	(1)	(2)	(3)	(4)
SIGNAL STRENGTH				
LINEAR	0.0019 (0.0016)		-0.0001 (0.0005)	
LOG TRANSFORMED		0.180 (0.158)		-0.0006 (0.0572)
ENLISTMENT AGE <i>Relative to 18</i>	-0.0133** (0.0051)	-0.0132** (0.0051)	-0.0092*** (0.0027)	-0.0092*** (0.0027)
WOUNDED <i>Dummy: 1 for Being Wounded</i>	0.0241 (0.0635)	0.0241 (0.0635)	0.0083 (0.0335)	0.0083 (0.0335)
NAZI MEMBERSHIP <i>Dummy: 1 for Member of SS, Brownshirts, or Nazi Party</i>	0.178** (0.0767)	0.178** (0.0768)	-0.0367 (0.0327)	-0.0367 (0.0327)
INTERCEPT	3.341*** (0.483)	2.704*** (0.847)	1.054*** (0.212)	1.047*** (0.328)
ENLISTMENT YEAR FIXED EFFECTS	✓	✓	✓	✓
KREIS LEVEL CONTROLS	✓	✓	✓	✓
INDIVIDUAL CONTROLS	✓	✓	✓	✓
# OF SOLDIERS	4833	4833	2341	2341
R ²	0.0748	0.0748	0.0499	0.0499

KREISE LEVEL CONTROLS include: the fifth-order polynomial of population, the share of Jewish and Catholic population in 1933, the share of unemployed and partially employed in 1933, the share of white and blue collar workers in 1925, the logged distance to the closest city, the percentage of Nazi vote in 1933, the logged average property tax in 1930, and the # of welfare recipients, social renters, & war participants per 1000 people.

INDIVIDUAL CONTROLS include: whether the soldier was Catholic or married, the soldier's economic class, a dummy for living in a large city, and their relative height and weight.

Kreise clustered standard errors in parentheses: *** indicates $p \leq .01$, ** indicates $p \leq .05$, * indicates $p \leq .1$

11 Soldiers Enlisted Before the Start of World War II

Table 13: Radio Tower Signal and Decorations for Soldiers Enlisted Before Sept. 1st 1939

	Dependent Variable:					
	SOLDIER IS DECORATED		HIGH DECORATION		# OF DECORATIONS	
	(1)	(2)	(3)	(4)	(5)	(6)
SIGNAL STRENGTH						
LINEAR	0.0009** (0.0004)		0.0002 (0.0003)		0.0010 (0.0008)	
LOGIT TRANSFORMED		0.0991** (0.0407)		0.0201 (0.0359)		0.119 (0.0825)
ENLISTMENT AGE <i>Relative to 18</i>	-0.0196*** (0.0012)	-0.0196*** (0.0012)	-0.014*** (0.0011)	-0.0141*** (0.0012)	-0.0454*** (0.0030)	-0.0453*** (0.0030)
WOUNDED <i>Dummy: 1 for Being Wounded in Combat</i>	0.389*** (0.0153)	0.389*** (0.0153)	0.304*** (0.0202)	0.304*** (0.0202)	1.097*** (0.0681)	1.097*** (0.0681)
NAZI MEMBERSHIP <i>Dummy: 1 for Member of SS, Brownshirts, or Nazi Party</i>	0.0042 (0.0154)	0.0040 (0.0154)	0.0004 (0.0148)	0.0003 (0.0148)	-0.0401 (0.0355)	-0.0405 (0.0355)
INTERCEPT	0.667*** (0.169)	0.303 (0.236)	0.438*** (0.161)	0.362* (0.218)	1.260*** (0.394)	0.816 (0.557)
ENLISTMENT YEAR FIXED EFFECTS	✓	✓	✓	✓	✓	✓
KREIS LEVEL CONTROLS	✓	✓	✓	✓	✓	✓
INDIVIDUAL CONTROLS	✓	✓	✓	✓	✓	✓
# OF SOLDIERS	4734	4734	4734	4734	4734	4734
R ²	0.148	0.149	0.117	0.117	0.183	0.183

KREIS LEVEL CONTROLS include: the fifth-order polynomial of population, the share of Jewish and Catholic population in 1933, the share of unemployed and partially employed in 1933, the share of white and blue collar workers in 1925, the logged distance to the closest city, the percentage of Nazi vote in 1933, the logged average property tax in 1930, and the # of welfare recipients, social renters, & war participants per 1000 people.
INDIVIDUAL CONTROLS include: whether the soldier was Catholic or married, the soldier's economic class, a dummy for living in a large city, and their relative height and weight.
Kreise clustered standard errors in parentheses: *** indicates $p \leq .01$, ** indicates $p \leq .05$, * indicates $p \leq .1$

Table 14: Radio Tower Signal and Decorations for Soldiers Enlisted Before Sept. 1st 1939 - Company Fixed Effects

	Dependent Variable:					
	SOLDIER IS DECORATED		HIGH DECORATION		# OF DECORATIONS	
	(1)	(2)	(3)	(4)	(5)	(6)
SIGNAL STRENGTH						
LINEAR	0.0010* (0.0005)		0.0000 (0.0005)		0.0013 (0.0012)	
LOGIT TRANSFORMED		0.102* (0.0540)		0.0057 (0.0534)		0.141 (0.130)
ENLISTMENT AGE <i>Relative to 18</i>	-0.0136*** (0.0027)	-0.0136*** (0.0027)	-0.0132*** (0.0024)	-0.0132*** (0.0024)	-0.0427*** (0.0058)	-0.0426*** (0.0058)
WOUNDED <i>Dummy: 1 for Being Wounded in Combat</i>	0.326*** (0.0176)	0.326*** (0.0176)	0.260*** (0.0235)	0.260*** (0.0235)	0.983*** (0.0671)	0.983*** (0.0672)
NAZI MEMBERSHIP <i>Dummy: 1 for Member of SS, Brownshirts, or Nazi Party</i>	0.0137 (0.0220)	0.0136 (0.0220)	-0.0012 (0.0189)	-0.0012 (0.0189)	0.0102 (0.0483)	0.00993 (0.0483)
INTERCEPT	0.127 (0.241)	-0.244 (0.344)	0.0889 (0.230)	0.0670 (0.339)	0.0131 (0.558)	-0.503 (0.845)
ENLISTMENT YEAR FIXED EFFECTS	✓	✓	✓	✓	✓	✓
KREIS LEVEL CONTROLS	✓	✓	✓	✓	✓	✓
INDIVIDUAL CONTROLS	✓	✓	✓	✓	✓	✓
# OF SOLDIERS	2833	2833	2833	2833	2833	2833
R ²	0.200	0.200	0.164	0.164	0.257	0.257

KREIS LEVEL CONTROLS include: the fifth-order polynomial of population, the share of Jewish and Catholic population in 1933, the share of unemployed and partially employed in 1933, the share of white and blue collar workers in 1925, the logged distance to the closest city, the percentage of Nazi vote in 1933, the logged average property tax in 1930, and the # of welfare recipients, social renters, & war participants per 1000 people.
INDIVIDUAL CONTROLS include: whether the soldier was Catholic or married, the soldier's economic class, a dummy for living in a large city, and their relative height and weight.
Kreise clustered standard errors in parentheses: *** indicates $p \leq .01$, ** indicates $p \leq .05$, * indicates $p \leq .1$

12 Average Number of Decorations Per Year of Service

Table 15: Radio Tower Signal and Average Number of Decorations Per Year of Service

	Dependent Variable:							
	# OF DECORATIONS PER YEAR IN SERVICE							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SIGNAL STRENGTH								
LINEAR	0.0001*		0.0002**		0.0001		0.0001	
	(0.0001)		(0.0001)		(0.0001)		(0.0002)	
LOG TRANSFORMED		0.0150*		0.0209**		0.0054		0.0148
		(0.0083)		(0.0097)		(0.0149)		(0.0158)
ENLISTMENT AGE	-0.0052***	-0.0052***	-0.0051***	-0.0051***	-0.0055***	-0.0055***	-0.0062***	-0.0062***
<i>Relative to 18</i>	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0008)	(0.0008)	(0.0008)	(0.0008)
WOUNDED	0.173***	0.173***	0.179***	0.179***	0.154***	0.154***	0.155***	0.155***
<i>texts superscript Dummy: 1 for Being Wounded</i>	(0.0108)	(0.0108)	(0.0127)	(0.0127)	(0.0107)	(0.0107)	(0.0122)	(0.0122)
NAZI MEMBERSHIP	0.0003	0.0002	0.0035	0.0035	0.00253	0.0025	0.0034	0.0034
<i>Member of SS, Brownshirts, or Nazi Party</i>	(0.0049)	(0.0049)	(0.0050)	(0.0050)	(0.0063)	(0.0063)	(0.0063)	(0.0063)
INTERCEPT	0.0475	-0.00737	0.0775*	0.00127	-0.0744	-0.0935	-0.0830	-0.136
	(0.0389)	(0.0504)	(0.0431)	(0.0615)	(0.0578)	(0.0867)	(0.0602)	(0.0917)
NOT KIA			✓	✓			✓	✓
COMPANY FE					✓	✓	✓	✓
ENLISTMENT YEAR FE	✓	✓	✓	✓	✓	✓	✓	✓
KREIS LEVEL CONTROLS	✓	✓	✓	✓	✓	✓	✓	✓
INDIVIDUAL CONTROLS	✓	✓	✓	✓	✓	✓	✓	✓
# OF SOLDIERS	9068	9068	7868	7868	4492	4492	3791	3791
R ²	0.171	0.171	0.180	0.180	0.232	0.232	0.258	0.258

KREISE LEVEL CONTROLS include: the fifth-order polynomial of population, the share of Jewish and Catholic population in 1933, the share of unemployed and partially employed in 1933, the share of white and blue collar workers in 1925, the logged distance to the closest city, the percentage of Nazi vote in 1933, the logged average property tax in 1930, and the # of welfare recipients, social renters, & war participants per 1000 people.

INDIVIDUAL CONTROLS include: whether the soldier was Catholic or married, the soldier's economic class, a dummy for living in a large city, and their relative height and weight.

Kreise clustered standard errors in parentheses: *** indicates $p \leq .01$, ** indicates $p \leq .05$, * indicates $p \leq .1$

13 Variable Creation – Decorations

We omit campaign medals and non-combatant decorations from consideration, even though they were rated highly in the Wehrmacht's order of merit. For instance, the non-combatant War Merit Cross (*Kriegsverdienstkreuz ohne Schwerter*) and the Eastern Front Winter Campaign Medal 1941-1942 scored second and fourth on the order of merit (Angolia, p 421). Yet these do not capture military merit in the same way that combat decorations do. The criteria for the awards were simply that an individual soldier had 'served honorably' on the front to which they had been assigned (Absolon, p 496-498).

The combatant decorations along with English translations are provided below.

Table 16: Medals and Translations

	German	English
1	Deutschritterkreuz	German Knight's Cross
2	Deutsch-Ordenskreuz mit Lorbeer	German Order Cross with Laurels
3	Tapferkeitsauszeichnung für die Angehörigen der Ostvölker II. Klasse	Bravery Award for Members of the Eastern Peoples 2nd Class
4	Ritterkreuz zum EK	Knight's Cross to the Iron Cross
5	Tapferkeitsauszeichnung für die Angehörigen der Ostvölker II. Klasse Silber	Bravery Award for Members of the Eastern Peoples 2nd Class Silver
6	Deutsches Kreuz Gold	German Cross in Gold
7	Ehrenpokal für besondere Leistungen im Luftkrieg	Commemorative Goblet for special achievements in aerial combat
8	EK I	Iron Cross First Class
10	Nahkampfspange Gold	Close Quarters Combat Clasp Gold
11	EK II	Iron Cross Second Class
13	Infanteriesturmabzeichen Silber	Infantry Assault Badge Silver
14	Nahkampfspange Silber	Close Quarters Combat Clasp Silver
15	Sturmabzeichen Silber	Assault Badge Silver
16	Spange zum EK II	Bar to the Iron Cross Second Class
17	Frontflugspange Gold	Front Line Flyer's Clasp Gold
18	Infanteriesturmabzeichen	Infantry Assault Badge
19	Infanteriesturmabzeichen Bronze	Infantry Assault Badge Bronze
20	Nahkampfspange Bronze	Close Quarters Combat Clasp Bronze
21	Sturmabzeichen	Assault Badge
22	Pioniersturmabzeichen	Pioneer Assault Badge
23	Nahkampfspange	Close Quarters Combat Clasp
24	Frontflugspange für Transportflieger Gold	Front Line Flyer's Clasp for Transport Pilots in Gold
25	Sturmabzeichen für schwere Waffen	Assault Badge for heavy weaponry
26	Panzerkampfabzeichen III. Stufe	Tank Combat Badge 3rd Class
27	Reserve-Sturmabzeichen	Reserve Assault Badge
28	Frontflugspange für Aufklärer Gold	Front Line Flyer's Clasp for Signallers in Gold

29	Frontflugspange für Kampfflieger Gold	Front Line Flyer's Clasp for Fighters in Gold
30	Frontflugspange für Schlachtflieger Gold	Front Line Flyer's Clasp for Battle Flyers in Gold
31	Panzerkampfabzeichen Silber	Tank Combat Badge Silver
32	Panzerkampfabzeichen II. Stufe	Tank Combat Badge Second Class Silver
33	Frontflugspange Silber	Front Line Flyer's Clasp Silver
34	Frontflugspange für Kampfflieger Silber	Front Line Flyer's Clasp for Fighters in Silver
35	Frontflugspange für Jäger Silber	Front Line Flyer's Clasp for Hunters in Silver
36	Frontflugspange für Transportflieger Silber	Front Line Flyer's Clasp for Transport Flyers in Silver
37	Frontflugspange für Aufklärer Silber	Front Line Flyer's Clasp for Signallers in Silver
38	Frontflugspange für Nachtjäger Silber	Front Line Flyer's Clasp for Nightfighters Silver
39	Flakkampfabzeichen	Anti aircraft combat badge
40	Frontflugspange Bronze	Front Line Flyer's Clasp Bronze
41	Frontflugspange für Kampfflieger Bronze	Front Line Flyer's Clasp for Fighters Bronze
42	Frontflugspange für Jäger Bronze	Front Line Flyer's Clasp for Hunters Bronze
43	Frontflugspange für Nachtjäger Bronze	Front Line Flyer's Clasp for Night Fighters Bronze
44	Frontflugspange für Transportflieger Bronze	Front Line Flyer's Clasp for Transport Flyers Bronze
45	Frontflugspange für Aufklärer Bronze	Front Line Flyer's Clasp for Signallers Bronze
46	Frontflugspange für Transportflieger	Front Line Flyer's Clasp for Transport Flyers
47	Heeresflakabzeichen	Army anti-aircraft badge
48	Kampfabzeichen der Flakartillerie	Combat Badge for Anti Aircraft Artillery
49	Panzerkampfabzeichen	Tank Combat Badge
50	Panzerkampfabzeichen Bronze	Tank Combat Badge Bronze
51	Fliegerschützenabzeichen für Bordfunker	Aircraft Protection Badge for Radio Operators
52	Erdkampfabzeichen der Luftwaffe	Ground Combat Badge for the Luftwaffe
53	Arbeitsabzeichen für Nachrichtenpersonal	Intelligence Personnel Armband
54	Fliegerschützenabzeichen für Bordmechaniker und Bordschützen	Aircraft protection badge for flight engineers and flight gunners
55	Sturmgeschützabzeichen	Assault trooper badge
56	Panzervernichtungsabzeichen	Tank destruction badge
57	Blockadebrecherabzeichen	Blockade runner badge
58	Minensuchabzeichen	Mine sweeper badge
59	Bandenkampfabzeichen	Partisan combat badge
60	Scharfschützenabzeichen	Sharpshooter's badge

61	Abzeichen für Richtkanoniere	Gunner's Armband
62	U-Boot-Kriegsabzeichen	U Boat Badge
63	Abzeichen für Bodenpersonal	Flight Crew Badge
64	Bordschützenabzeichen	Flight Protection Badge
65	Ungarische Tapferkeitsmedaille Bronze	Hungarian Bravery Medal Bronze
66	Rumänische Treudienstmedaille mit Schwertern III. Klasse	Romanian Loyal Service Medal with Swords 3rd Class
67	Rumänischer Orden Mannhaftigkeit und Glaube mit Schwertern II	Romanian Order of Virility and Faith With Swords 2nd Class
68	Rumänisches Treuedienstkreuz III. Klasse	Romanian Loyal Service Cross 3rd Class
69	Rumänisches Treuedienstkreuz mit Schwertern III. Klasse	Romanian Loyal Service Cross With Swords 3rd Class
70	Rumänisches Treuedienstkreuz mit Schwertern II. Klasse	Romanian Loyal Service Cross with Swords 2nd Class
71	Bulgarisches Unteroffiziersehrenabzeichen der Infanterie	Bulgarian Infantry NCO Honor Badge
72	Bulgarische Kriegsverdienstmedaille in Bronze mit Krone	Bulgarian War Merit Medal in Bronze with a Crown
73	Bulgarisches Soldatenkreuz des Tapferkeitsordens II. Klasse	Bulgarian Soldier's Cross of the Bravery Order 2nd Class
74	Bulgarisches Ehrenabzeichen der Infanterie	Bulgarian Infantry Honor Badge
75	Bulgarische Tapferkeitsmedaille I. Klasse	Bulgarian Bravery Medal 1st Class
76	Bulgarisches Soldatenkreuz des Tapferkeitsordens I	Bulgarian Soldier's Cross of the Bravery Order 1st Class
77	Bulgarisches Soldatenkreuz des Tapferkeitsordens IV	Bulgarian Soldier's Cross of the Bravery Order Fourth Class
78	Bulgarische Tapferkeitsmedaille II. Klasse	Bulgarian Bravery Medal 2nd Class
79	Bulgarische Silberne Verdienstmedaille ohne Krone am Kriegsband	Bulgarian Silver Merit Medal without Crown
80	Bulgarische Silberne Verdienstmedaille mit Krone	Bulgarian Silver Merit Medal with Crown
81	Bulgarische Kriegsverdienstmedaille in Silber ohne Krone	Bulgarian War Merit Medal in Silver without a Crown
82	Bulgarischer Militärverdienstorden IV. Klasse	Bulgarian Military Merit Order 4th Class
83	Bulgarische Kriegsverdienstmedaille in Silber mit Krone	Bulgarian War Merit Medal in Silver with Crown
84	Bulgarische Kriegsverdienstmedaille in Bronze ohne Krone am Kriegsband	Bulgarian War Merit Medal in Bronze without Crown
85	Bulgarische Silberne Verdienstmedaille ohne Krone	Bulgarian Silver Merit Medal without a Crown
86	Bulgarisches Soldatenkreuz des Tapferkeitsordens IV. Klasse	Bulgarian Soldier's Cross of the Bravery Order 4th Class
87	Bulgarisches Soldatenkreuz des Tapferkeitsordens II	Bulgarian Soldiers' Cross of the Bravery Order 2nd Class
88	Bulgarisches Fliegerabzeichen	Bulgarian Flyer's Badge

89	Bulgarisches Kreuz des Roten Kreuzes für besondere Verdienste	Bulgarian Cross of the Red Cross for special achievement
90	Bulgarisches Soldatenkreuz des Tapferkeitsordens	Bulgarian Soldiers' Cross of the Bravery Order
91	Bulgarische Kriegsverdienstmedaille VI. Klasse mit Krone am Kriegsband	Bulgarian War Merit Medal 4th Class with Crown
92	Bulgarischer Militärverdienstorden mit Krone und Kriegsdekoration	Bulgarian Military Merit Order with Crown and War Decoration
93	Bulgarisches Soldatenkreuz des Tapferkeitsordens I. Klasse	Bulgarian Soldiers' Cross of the Bravery Order 1st Class
94	Bulgarisches Ehrenabzeichen der Infanterie Bronze	Bulgarian Infantry Honor Badge Bronze
95	Bulgarisches Sturmabzeichen der Infanterie	Bulgarian Infantry Assault Badge
96	Bulgarische Tapferkeitsmedaille	Bulgarian Bravery Medal
97	Bulgarischer Orden 3. Stufe II. Klasse	Bulgarian Order 3rd Level 2nd Class
98	Finnische Medaille II. Klasse des Ordens Weisses Rose	Finnish Medal of the White Rose 2nd Class
99	Finnische Freiheitsmedaille I. Klasse	Finnish Freedom Medal 1st Class
100	Finnische Freiheitsmedaille II. Klasse	Finnish Freedom Medal 2nd Class
101	Österreich Tapferkeitshorenkreuz für Frontkämpfer	Austrian Bravery Cross for Front Line Fighters
102	Kroatischer Militärorden vom Eisernes Dreiblatt 4. Stufe mit Eichenlaub	Croatian Military Order of the Iron Trefoil 4th Class with Oak Leaves
103	Kroatische Kleine Silberne Tapferkeitsmedaille	Croatian Small Silver Bravery Medal
104	Italienisches Tapferkeitsabzeichen Silber	Italian Bravery Badge Silver
105	Italienisches Militär Verdienstkreuz	Italian Military Merit Cross
106	Rumänischer Treudienstorden I. Klasse	Romanian Loyal Service Order 1st Class
107	Rumänische Treudienstmedaille mit Schwertern III. Klasse	Romanian Loyal Service Order with Swords 3rd Class
108	KVK I mit Schwertern	War Merit Cross First Class with Swords
109	KVK II mit Schwertern	War Merit Cross 2nd Class with Swords
110	KVK mit Schwertern	War Merit Cross with Swords
111	Verwundetenabzeichen	Wound Badge
112	Tapferkeitsauszeichnung	Bravery Award
113	Tapferkeitshorenkreuz	Bravery Honor Award
114	Ritterkreuz	Knight's Cross
115	Luftschutzhorenzeichen	Air Defence Honor Award
116	Polizeidienstauszeichnung	Police Service Award
117	Erinnerungsmedaille für Errettung aus Gefahr	Commemorative Medal for Saving Those in Danger

14 Variable Creation – Highest Decoration

- 1 Non-German medals. These were placed lowest on the official Wehrmacht order of merit (For Führer and Fatherland:– Military Awards of the Third Reich (Angolia, 1987, p 421)
- 2–6 Badges and clasps for bravery in combat, with an additional point awarded for each grade (ie, *Stufe 1, Stufe 2, Stufe 3* etc) (*Die Wehrmacht im Dritten Reich*, Rudolf Absolon, pp 494–503). If the grade (*Stufe*) is not noted, it is assumed to be the lowest grade, 1. Specifically, these badges and clasps include– *Bandenkampfabzeichen, Tieffliegervernichtungsabzeichen, Sonderabzeichen für das Niederkämpfen von Kampfwagen durch Einzelkämpfer, Panzerkampfabzeichen, Sturmabzeichen (Bronze), Nahkampfspange (Bronze)*
- 7 Iron Cross 2nd Class/*Nahkampfspange (Silber)/Sturmabzeichen (Silber)*
- 8 Iron Cross 1st Class/*Nahkampfspange (Gold)/Sturmabzeichen (Gold)*. The *Nahkampfspange (Gold)* was considered by Hitler to be the highest bravery award for the infantry before the Knight's Cross of the Iron Cross, the Führer reserving the right to award them personally (Angolia p 100). In fact, according to Absolon (1971), a winner of the gold *Nahkampfspange* had the same rights as a winner of the Knight's Cross of the Iron Cross (Absolon, p 495). This would make it equivalent at least to the Iron Cross 1st Class, with the Silver *Nahkampfspange* being equivalent to the Iron Cross 2nd Class. The *Sturmabzeichen* was equivalent to the *Nahkampfspange*– the difference being that different units were eligible for one or the other (Absolon, p 496)
- 9 German Cross in Gold. Winner had to already have the Iron Cross First Class. Ranked below the Knight's Cross of the Iron Cross.
- 10 Knight's Cross of the Iron Cross
- 11 Knight's Cross of the Iron Cross with Oak Leaves
- 12 Knight's Cross of the Iron Cross with Oak Leaves and Swords
- 13 Knight's Cross of the Iron Cross with Oak Leaves, Swords and Diamonds
- 14 Knight's Cross of the Iron Cross with Golden Oak Leaves, Swords and Diamonds. According to the protocol laid down by the Führer Directive of 1st September 1939, *Reichsgesetzblatt* I S. 1573, and modified by I S. 849 of June 3rd 1940, I S. of 28th September 1941 and I S. 11 of 9th December 1944.

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