

MISSIONS OVER OCCUPIED GERMANY

Challenger

DEC 9, 1944 TO APR 19 1945

COMPOSITION BOOK

15th ARMY AIR FORCE

U.S.A.A.F.



48 SHEETS

K-579

NAME

John Batley

GRADE

T/Sgt

45W33584891

DIARY OF MISSIONS

FLOWN BY

JOHN J. BOTLEY (PENNA)

RADIO OPERATOR

+

GUNNER

PLANE. B-24J-1

PLACE: CASTELLICO AIR FIELD, ITALY

: 451ST BOMB GRP. 726 SQD.

VOCABULARY

SQUADRON: 7 TO 10 PLANES

GROUP: 3 TO 4 SQUADRONS

WING: 3 TO 4 GROUPS

AIR FORCE: A NUMBER OF WINGS.

GWNS: NUMBER OF ANTI-AIRCRAFT

GWNS AT TARGET

ALTERNATE: OTHER THAN THE PRIMARY
TARGET.

M/Y: Marshalling Yard.

O/F: Oil Refinery

MIKEY: RADAR SHIP-BOMBING
INSTRUMENTS.

IP: Initial Point. Start of
Bomb Run.

A/F: Air Field

Wheel Run: Bomb by instruments

Shack Run: Visual run

2/3 - railroad bridge

TIME: DEC 9, 1944

SHIP No. 47

TARGET: LINZ AUSTRIA

GUNS: 170

OBJECTIVE: M/Y

FLYING TIME: 4:10 hrs.

STORY:

Briefed at 6 A.M. Told to expect some fighter opposition. Took off at 8:25 AM with 7-500 lb. incendiaries and 2700 gallons of gas. The weather wasn't the kind of weather for tight formation. The undercast ran from 5000 ft to 2000 ft. We were in a 3 ship formation when we got into the undercast. Then we got lost. The navigator had no idea where we were. We tried to meet the formation. But we ended up in Yugoslavia somewhere. I got

my first glimpse of Falk. (Flab). It
was just 4 shots of it off our
wing. It really scared me. We
finally gave up and headed back
to the field. We salvaged our
bombs in the Adriatic. We didn't
get credit for any mission. Only
two of our planes went on to the
target.

SUMMARY:

The group went to the
3rd alternate. of little importance

SITUATION: STAFU

LOSSES : NONE

TIME DEC. 25, 1945

SHIP NO. 53

TARGET: BRUX, GERMANY

GUNS: 335

OBJECTIVE: OIL REFIN.

FLYING TIME: 7:10 hrs.

STORY:

Briefed at 5:30 A.M. Told that this was the longest target for the 15th Air Force. Also one of the toughest. Took off at 7:50 A.M. carrying 6-500 lbs (demolition) and 2700 gallons of gas. We rendezvoused out over the Adriatic. Several hours had passed when the base called us up and changed our target to the 3rd alternate. Wells, Austria a m/v. Bombs away at 11:47 A.M. It really is a sight to see thousands of bombs out of the planes

and it really was a fine Christmas present for Jerry. The bomb just waltzed across the target. It was completely destroyed. Flak was very lite. None of our ships were hit. We reached the base and landed.

SUMMARY:

Our whole crew flew today but not in one ship. sure glad we didn't go to Bruck. Its another Plasti.

SITUATION: VERY GOOD

LOSSES: NONE

TIME: DEC. 26, 1944

SHIP NO. 45

TARGET - OSWEICIM, POLAND

GUNS: 190

OBJECTIVE: O/F

FLYING TIME: 8:40 hrs

STORY:

Briefed at 5:30 AM. This was the first time the 15th air force had gone all the way to Poland to Bomb. Oswiecim is one of the most important O/F Germany has. We flew as a crew today with the exception of our Co-Pilot. Took off at 7:50 AM with 6-500 lb demolitions and 2700 gallons of gas. We reached the target at 12:10 P.M. We were the last group in our wing to hit the target. Bombs away at 12:18 P.M. Before we reached the target they threw a heavy wall

of flak. It doesn't seem possible
our whole group got through with-
out losing any ships. About every
one of them were hit. I really tried
to get further down in my flak
sight. We were just about a half
hour off the target we saw smack
over another flak area. It wasn't
too intense but it was accurate as
hell. No. 1 & 2 planes in our form-
ation were hit. One headed for the
Russian lines and the other tried
for Vis an island off Yugoslavia.
Our formation was scattered all over
hell. Gas was the next worry.
Our gauges were reading about
10 gallons when we reached the
coast of Italy. But we had

plenty of gas when we landed. all of
the planes were plenty low on gas
when we got back. 8 hours: 40 min.
is too much flying at one stretch.
We only had 5 holes in our ship.

SUMMARY:

It seems as though you
in the flats for years. I do quite
a bit of praying. About $\frac{2}{3}$ of the
target was destroyed.

SITUATION: NOT SO HOT

LOSSES: OUR SQUAD. LOST 2 PLANES

TIME: DEC. 29, 1945

SHIP NO. 53

TARGET: ODENDORFF, GERMANY

GUNS: 6

OBJECTIVE: A/Y.

FLYING TIME: 7:30 hrs.

STORY:

Briefed at 5:30 AM. Told to expect 20 to 30 fighters and light flak. With Von Kuntze's push communications had taken priority over O/F. I was flying as a substitute and not with my crew. Which I don't like to do. We reached the target about 11:30 AM. The main ship couldn't pick up the target so we overshot the T.P. and decided to go to Udine, Italy. The 5th alternate. We got back to Northern Italy and it's a regular flak

alley. We ran over a flab area. It
wasn't to accurate but it was pretty
heavy. We got out of there and ran
right over another flab area. This
was fairly accurate but it didn't
knock any ships down. About that
time everyone was pretty sore and
wanted to go back home. We reached
the target and dropped our bombs
at 1:25 P.M. Then ran into the
flab. It was moderate but damn
accurate. One ship got a direct
hit and split right in half.
No one had a chance. I was bending
over and I got knocked back ag-
ainst the other side of the ship.
I caught a piece of it in my
arm and the rest the flab sent

stopped thank goodness. Our plane
split away from the rest of the
formation and we were flying alone
and all alone. We got out over the
Adriatic and headed for home. When
we landed they had the ambulance
waiting for me. I went to the
hospital for 10 days. It was only a
scratch and piece of flab was just
under the skin.

SUMMARY:

The bombs made direct
hits on the M/V.

SITUATION: NOT SO HOT.

LOSSES: NONE IN OUR SQUADRON.

NOTE: I usually ride right wrist but I
had changed to left wrist today.
Never again.

TIME: JAN 19, 1945

SHIP NO. 46

TARGET: BROD, YUGOSLAVIA

GNPS: 79

OBJECTIVE: Bridge

FLYING TIME: 5:00 hrs.

STORY:

Briefed at 6 AM. Were supposed to go to Vienna but ceiling was too high. Phew. Took off at 10 AM with 8-500 lbs of demos and 2700 gallons of gas. We reached the target at 12:30 PM. I dropped our bombs and then ran into the flak. It wasn't accurate and it was well scattered. I have a great deal of respect for flak anymore. It only takes one shell. We didn't even run over another flak area. I'd like to fly all my 35 missions to Brod. Its

nice and short. We landed and found only 2 holes in our ship.

SUMMARY:

We missed the bridge had a few near misses. But most of our bombs went into the center of town. Poor partisans. The groups behind us hit the bridge.

SITUATION: VERY GOOD

LOSSES: NONE

TIME: JAN 31, 1945

SHIP NO. 50

TARGET: MOOSEBERG DAM, AUSTRIA

GUINS: 90

OBJECTIVE: O/F.

FLYING TIME: 7:15 hrs.

STORY:

Briefed at 6 AM. Told it was the largest O/F Germany has left. And the whole air force was going there. We were leading our wing. Took off at 9 AM carrying 8-500 lbs of bombs and 2700 gallons of gas. About half way to the target we ran over a flak area. It was damn accurate. No. 3 plane was hit and had to head for home. We took over No. 3 pos. There was a complete understatement at the target. Bombs away at 2:20 PM and headed for home. We

didn't catch any flab over the target.
We reached home and landed.

SUMMARY:

Reconnaissance later showed
that the plant was knocked out.

SITUATION: FAIR

LOSSES: NONE. NO. 3 plane made
it back to the base. Our planes had
about 20 holes.

TIME: FEB 5, 1945

SHIP NO. 49

TARGET: REGENSBURG, GERMANY.

GUNS: 42

OBJECTIVE: O/F

FLYING TIME: 875 hrs

STORY:

Briefed at 5:45 AM. This target
was to be an oil refinery but now
its being used as an oil storage
about 600 tanks. The whole air force
was going there. We took off at 8:05
AM carrying 16-250 lb demols and 2700
gallons of gas. We ran into a snow
storm on our way up and one squ-
adron got lost and had to head
for an alternate. We reached the
target at 12:55 PM. We made the
bomb run caught the flak but we
didn't drop our bombs. Just as
we were ready to drop them. A

group went under us. Instead of making another bomb run we went to the 3rd alternate Rosenheim. No flak we dropped our bombs and headed for home. We had trouble with no 2 engine and it was feathered just as we landed.

SITUATION:

screwed up because we reached the target too early and another group was bombing.

LOSSES: NONE

TIME: FEB 8, 1945

SHIP NO. 53

TARGET: VIENNA, AUSTRIA

GUNS: 340

OBJECTIVE: M/Y

FLYING TIME: 7:20 hrs.

STORY:

Briefed at 5:45 AM. This was the second successive day the 15th was going to Vienna. Our group suffered large losses yesterday. Due to the expected Russian push soon to come on Vienna we were to bomb communications in the heart of the city. Vienna is a regular fortress with all her guns. Took off at 8:10 AM with 8-500 lb bombs and 2700 gallons of gas. We were all plenty scared. To our very good fortune there was a complete overcast. When we started our

our bomb run I was waiting for a wall of flak a mile long but it never came. We dropped our bombs and pulled off the target. About a minute of the target the flak came all pretty far behind us. I thank goodness. Praying really does help. Reached base and landed.

SUMMARY:

Have reason to believe target was hit

SITUATION: VERY GOOD

LOSSES: NONE

TIME: FEB 13, 1945

SHIP NO: 53

TARGET: VIENNA, AUSTRIA

GUNS: 340

OBJECTIVE: ~~NY~~

FLYING TIME: 7:20 hrs.

STORY: Briefed at 5:30. Told that target was clear and that's no good. Vienna isn't too rough with an undercast. We took off at 8:10 AM carrying 6-500 lb bombs and 2700 gallons of gas. We reached the target at 12:45. It was clear as a balded headed man. They had a very effective smoke screen. There was a large fire in the center of the target which was lit by other groups. We started the bomb run and caught the flak immediately. It was all over

we waiting and waiting for bombs
away but it never came. and
we were in the flab for almost
10 minutes. I cant see how we
got out with out losing a plane.
no one knew why we didnt drop
our bombs. We headed for the
2nd alternate Maribor, Yugoslavia.
We reached the target and also
the flab. It was very accurate and
after we dropped our bombs no.
4 plane went up and then nosed
straight down but he recovered
very fast and pulled back into
formation. One plane up ahead
was hit bad and he pulled off
and then we saw 4 chutes down
below us. Quite a few planes

headed for Vis. We got about 10
holes in our ship. We landed
at our base.

SUMMARY: Don't know why we
didn't drop our bombs over menina.
I think there nits personally. We
didn't hit the M/V at Maribor.

SITUATION: SNAFU

LOSSES: NONE

TIME: FEB 15, 1945

SHIP NO. 50

TARGET: VIENNA, AUSTRIA

GUNS: 340

OBJECTIVE: M/Y.

FLYING TIME 7:15 hrs.

STORY:

Briefed at 5:15 AM. This plan is getting to be like home. What is nice to hear is that it was very clear over the target. We took off at 8:25 AM with 8-500 lb bombs with 2700 gallons of gas. We almost had a collision in formation trying to climb through the undercast. We had a lot of trouble with prop wash and it tossed us around a heck of a lot. It was clear all the way to the target and then it was completely ~~an~~ undercast. Did that ever look nice. We made

our bomb run and dropped our bombs at 12:40 P.M. We met some flak it was pretty heavy but not to accurate. About half way back home. Enemy aircraft were spotted but they didn't bother us. They look for stragglers and then go after them. Our escort stayed with us all the time. We reached home and landed safely.

SUMMARY: Its not so bad when you have an undercast at Vienna but those clear days are rough.

SITUATION: VERY GOOD

LOSSES: NONE

TIME: FEB. 21, 1945

SHIP NO. 46

TARGET: VIENNA, AUSTRIA

GUNS: 340

OBJECTIVE: M/Y

FLYING TIME: 6:45 hrs.

STORY:

Briefed at 6:15 A.M. Told we were going to keep bombing Vienna until we hit something. Told to expect 8/10 cloud coverage. Took off at 8:15 carrying 8-500 lb bombs and 2700 gallons of gas. Almost had a collision with No. 2 ship getting into formation. About just as we reached the 1P our No. 2 engine's turbo supercharger went out and we couldn't pull enough manifold pressure to stay up with the formation. We had to abort. We dropped our landing gear to signify

we were aborting. The restrictor on the landing gear froze up and we couldn't get them back up. Carrying those bombs and with the landing gear down producing a lot of drag we lost about 7000 ft in a few minutes. The Pilot wanted to drop the bombs somewhere so the bombardier picked out a town with a railroad yard and by sighting off his foot dropped the bombs. He didn't have time to set up the bomb sight and we were losing altitude too fast. But one bomb hit smack on the railroad yard and the others were off (falling short). When you cover enemy territory by yourself your dumb safe for fighters. But a couple

P-51's saw us and flew right along side of us all the way home. At first we thought we were going to have to land at an emergency field. But the ship held its attitude and we made it back home with our landing gear still down.

SUMMARY: Much to our happiness we dropped our bombs 10 miles above the bomb line and received credit for a mission. It was clear over Vienna and the boys caught a lot of flak but everyone made it back OK.

SITUATION: FAIR: Some hits were recorded on Vienna

Losses: NONE

Feb 25, 1945

SHIP NO. 53

TARGET: LINZ, AUSTRIA

GUNS: 162

OBJECTIVE: M/V

FLYING TIME: 7:00 hrs.

STORY:

Briefed at 6:15 A.M. Told that communications has taken priority over anything else because of the expected push to come by the Russians from the East. No fighters expected. Took off at 8:40 A.M. Had a little trouble getting through overcast. It was clear as anything over the target. The last time our group went over Linz we took a nice pasting. We reached the target and dropped our bombs (8-500 lb demos) at 1:15 A.M. The flak was heavy but it was way off. They got one

plane in our group and she went down in flames. On the way back we sighted a few enemy fighters but they didn't bother us. We reached the base safely and landed at 3:40 PM.

SUMMARY: A few hits were observed on the target.

SITUATION: Good.

Losses: None in our squadron

Feb 27, 1945

SHIP NO. 45

TARGET: AUGSBURG, GERMANY

GUNS: 121

OBJECTIVE: M/Y

FLYING TIME: 7:40

STORY:

Briefed at 6:15 A.M. We had two plans. Able plan was a railroad bridge. Had to be bombed visually. No flak at that target. Baker plan was Augsburg a m/y north west of Munich could be tricky or visually bombed. Our flight has been catching all the rough ones while the other flight in our squadron has been getting all the easy ones. We thought we had an easy one for a change. But Able plan was called off.

and once more we had a rough
one in plan maker. They said
there going to leave the big targets
like Vienna, Ling, & Munich
alone and hit communication
in small places which are out
of the way and hard to fix. We
took off at 9:10 AM with 4-1000
lb. bombs and 2700 gallons of gas.
We reached the IP at 1:25 PM.
There were clouds all around
but it was clear over the
target. They had a nice wall
of flak up there waiting for us.
It was really heavy. Dropped our
bombs at 1:36 PM and pulled
off the target. One ship in our
group got a direct hit in the

wing. No. 3 engine was knocked out and the wing was just hanging there. The crew bailed out about a half hour later. It sure is funny listening to a crew calling up and telling that they are going to have to bail out and you can't do any thing to help them. We reached the base safely and landed.

summary: The target was hit pretty well. It was pretty well smoked over after the bombs hit.

SITUATION: GOOD

LOSSES: none in our Squadron

Mar. 1, 1945

SHIP NO. 54

TARGET: MOOSE BIERBAUM

GUNS: 90

OBJECTIVE: O/F

FLYING TIME 7:10

STORY:

Briefed at 7:15 AM. This is the most important oil refinery within our reach. Our group was split up in two forces. Red force & Blue force. Red force was to go into the target 5 minutes before the blue force. Took off at 9:30 AM with 8-500 lb. bombs. We were flying in Red force. About an hour before the target we ran over a flat area. Red force just caught about 5 shots of it. But blue force was in it for 5 minutes and a

couple of our ships had to abort.
We reached the target and had to
climb up to 27,000 ft. to get above
the clouds. We dropped our bombs
and pulled off the target. There was
a lot of flak but it was nowhere
near us. Couldn't observe bomb
hits because of an undercast. Blue
force also caught a lot of flak
over the target. One plane had
to land at Zara. an ~~emergency~~
field in Yugo. It burned after
they landed. We reached home
and landed safely at the base.

SUMMARY: Believed the Mickey
ship picked up the wrong target.
In Vienna.

SITUATION: FAIR

LOSSES: 1 plane in our sqd.

MAR 9, 1945

SHIP NO. 54

TARGET: BRUCK

GUNS: 37

OBJECTIVE: M/Y

FLYING TIME 6:30"

STORY:

Briefed at 5:15. Two plans. Baker plan was Ling and Able plan was Bruck. After we got out to the ships told that Plan Able was in effect. So we didn't take off until 11:45 A.M. Had a lot of trouble climbing through a low undercast. Carrying 8-500 lb demos. The target was completely undercasted. We made a run on Bruck but the whiskey ship couldn't pick up the target. So we decided to go to the 4th

alternate. Gray. Just 15 miles southeast
of Brucy. Made air bomb run
and dropped our bombs at 3:45 PM.
No flab was seen. Our tail
gunner said there were just a
few bursts way behind us. Due
to a tail wind we reached the
 Adriatic fairly fast. Just as we
reached the coast our tail
gunner sighted an Me 109. Within
shooting range, someone in the
group behind us shot him down.
He nosed over and went into
a tight spin. That's the closest
I want to come to fighters. He
shot a 24 down before they
got him. We reached the base
safely and landed at 6:15 PM.

Summary: They had a smooth
mickey run and they seem to think
the target was well hit.

Situation: Good.

Losses: None.

MAR 15, 1945

SHIP NO. 54

TARGET: KLAGENFURT, AUST.

NO. GUNS: 0

OBJECTIVE M/Y

FLYING TIME: 6:45

STORY:

Briefed at 4:15 A.M. Target was Vienna. Took off at 7:15 A.M. Carrying 8-500 lbs of bombs. About a half hour after take off our target was changed (much to our relief) to Klagenfurt. Things were uneventful and we reached the target at 11:30 A.M. Made our bomb run. Bombs away at 11:40 A.M. The run was a Mickey run because of a complete undercast. Returned at the base at 2 P.M. and landed safely.

summary. The lead ship said
it was a smooth Mickey run
and results were thought to be
good.

Situation: Good.

Losses: None.

Mar 19, 1945

SHIP NO. 52

TARGET: MULDORF, GER.

NO. GUNS: 0

OBJECTIVE: M/Y.

FLYING TIME: 7:30

STORY:

Briefed at 6:30 AM. The whole air force was hitting communications between Munich and Vienna. Although this M/Y is undefended it is (was) a tremendous yard and it was estimated that there was 1000 freight cars in the yard. Supposed to be bombed visually. Took off at 9 AM. carrying 40-100 lbs of demas. Reached the target at 1:10 PM it was clear so we could bomb it. Made our

bomb run. Bombs away at 1:30 P.M.
Being that there was no flak I opened
the camera hatch and watched for
bomb hits. They all went right
on the target and big balls of
fire were breaking out all over
allied off the target and retur-
ned to the base safely. Landed
at 4:30 P.M.

Summary: We had an excellent
bomb pattern and the target was
completely knocked out.

Situation: Excellent
Losses: None

Mar 21, 1945

SHIP NO. 53

TARGET - BROCK, ALA.

No. GUNS: 37

OBJECTIVE: M/Y

FLYING TIME: 7:00 HRS

STORY:

Briefed at 8:45 A.M. Things were all screwed up. The previous plan was changed and we had no definite take off time or target time. We took off at 10:30 A.M. carrying 4-1000 lb bombs. Reached the target at 2:45 made our bomb run but didn't drop our bombs. The flak wasn't very accurate. So we made a 360° turn and made another bomb run. This time we dropped our bombs but the flak was pretty accurate. And there was quite

a bit of it. Called off our target.
Returned to the base without further incident. Landed at 5:30 PM.

Summary: The target was hit pretty good and large fires were seen in the yard.

Losses: 1 plane in our squadron landed a Zare, Yugo. Later it was learned his ball turret gunner was killed.

MAR 25, 1945

SHIP NO. 50

TARGET-PRAGUE, CZE.

NO. GUNS: 59

OBJECTIVE: A/F.

FLYING TIME: 8:30 MIN.

STORY: Briefed at 5:45 AM. Told that there were 210 aircraft at Kbley airfield, just outside of Prague. Most of them jet jobs. Expected to meet lighter opposition. Took off at 8 AM carrying 3600 lbs of fragmentation bombs. We had to fly a loose formation to save gas because it was a long haul up there. We reached the target at 12:30 PM. There was a lot of flak but it wasn't accurate. Dropped our bombs and rallied off the target. We had to employ a weird bombing

pattern today because frags are touchy and go off very easily. Prague had a very effective smoke screen over it but the target was clear. About an hour from the target we saw Flab off our left. But it was way off. It was Buck. 8 Planes from our group had to go to Zara because of fuel being low. We reached home at 4:30 P.M. and loaded we had about 400 gallons left which is good for about 1 1/2 hours more.

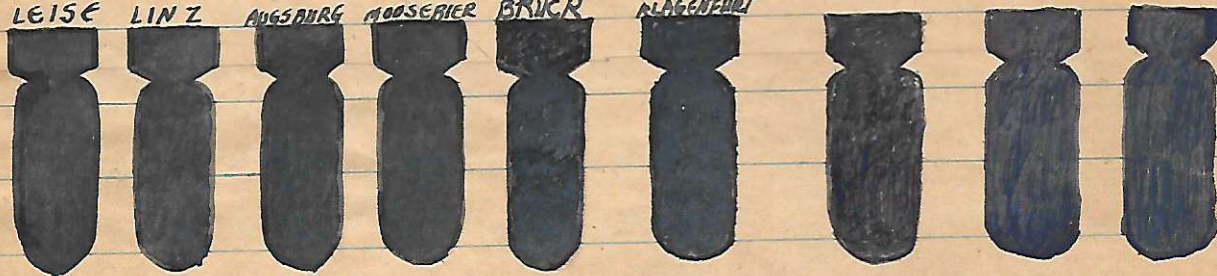
Summary: Our bombs landed smack on the target and bomb strike photos report we (our group) destroyed 50% of the planes

Losses: None in our squadron

WELLS OSWEIGUM UDINE BROD MOOSEBIEK REGESBACH VIENNA VIENNA VIENNA



LEISE LINZ AUGSBURG MOOSEBIEK BRICK ALAENTHART



FLYING TIME (CONT.)

VIENNA
 7:10 - Mission MAR 1, 1945
 6:30 - Mission MAR 8, 1945
 6:45 - Mission MAR 15, 1945
 7:30 - Mission MAR 19, 1945
 7:00 - Mission MAR 21, 1945
 8:30 - Mission MAR 25, 1945
 3:00 - Practice Mission MAR 27, 1945
 5:30 - Mission APR 14, 1945
 7:15 - Mission APR. 15, 1945
 7:15 - Mission APR. 19, 1945
 1:00 - Naples Apr. 23-30
 2:10 - Practice Mission May 6, 1945
 :35 - Foggia May 26, 1945
 10:30 - Marrakech, N. Afr. May 29, 1945
 9:00 - Azores May 30, 1945
 5:30 - Azores June 3, 1945
 9:30 - New Foundland June 5, 1945
 5:00 - Maine June 7, 1945
 2:00 - Conn. June 8, 1945

Total Flying Time
150 hrs in states - RT4.

4:10	abortive Mission	12/9/44
2:00	Practice Mission	12/23/44
7:10	Mission	12/35/44
8:30	Mission	12/26/44
7:30	Mission	12/29/44
5:00	Practice Mission	1/18/45
5:00	Mission	1/19/45
2:30	Practice Mission	1/28/45
7:15	Mission	1/31/45
8:10	Mission	2/5/45
7:30	Mission	2/8/45
3:30	Practice Mission	2/11/45
7:20	Mission	2/13/45
7:15	Mission	2/15/45
2:00	Weather Mission	2/20/45
6:45	Mission	2/21/45
7:00	Mission	2/25/45
7:40	Mission	2/27/45

Useful Information

MULTIPLICATION TABLE

1	2	3	4	5	6	7	8	9	10	11	12
2	4	6	8	10	12	14	16	18	20	22	24
3	6	9	12	15	18	21	24	27	30	33	36
4	8	12	16	20	24	28	32	36	40	44	48
5	10	15	20	25	30	35	40	45	50	55	60
6	12	18	24	30	36	42	48	54	60	66	72
7	14	21	28	35	42	49	56	63	70	77	84
8	16	24	32	40	48	56	64	72	80	88	96
9	18	27	36	45	54	63	72	81	90	99	108
10	20	30	40	50	60	70	80	90	100	110	120
11	22	33	44	55	66	77	88	99	110	121	132
12	24	36	48	60	72	84	96	108	120	132	144

Table of Time Measure

60 seconds = 1 minute
 60 minutes = 1 hour
 24 hours = 1 day
 7 days = 1 week
 30 days = 1 calendar month
 12 months = 1 year
 365 days = 1 common year
 366 days = 1 leap year
 100 years = 1 century

Table of Dry Measure

2 pints (pt.) = 1 quart (qt.)
 8 quarts = 1 peck (pk.)
 4 pecks = 1 bushel (bu.)
 1 cord = 128 cu. ft.

Table of Liquid Measure

4 gills (gi.) = 1 pint (pt.)
 2 pints = 1 quart (qt.)
 4 quarts = 1 gallon (gal.)
 31½ gallons = 1 barrel (bbl.)
 2 barrels = 1 hogshead (hhd.)

Table of Paper Measure

24 sheets = 1 quire
 20 quires = 1 ream
 10 reams = 1 bale

Table of Linear Measure

12 inches = 1 foot
 3 feet = 1 yard
 16½ feet (5½ yds.) = 1 rod
 660 feet = 1 furlong
 320 rods (5280 ft.) = 1 mile

Table of Cubic Measure

1728 cubic inches = 1 cubic foot
 27 cubic feet = 1 cubic yard
 128 cubic feet = 1 cord of wood
 24½ cubic feet = 1 perch of stone
 NOTE—A cord of wood is a pile 8 feet long, 4 feet wide and 4 feet high.
 A perch of stone or brick is 16½ feet long, 1½ feet wide, and 1 foot high.

Table of Circular Measure

60 seconds (") = 1 minute (')

60 minutes = 1 degree (°)

360 degrees = 1 circumference

A degree of the earth's surface on a meridian = 69.16 miles.

Miscellaneous Measures

12 units = 1 dozen
 12 doz. = 1 gross
 12 gr. = 1 great gross
 20 units = 1 score
 1 hand = 4 inches
 1 fathom = 6 feet
 1 knot = 6086 feet
 3 knots = 1 league
 1 bushel potatoes = 60 lbs.
 1 barrel flour = 196 lbs.
 1 cu. ft. of water = 7.48 liquid gals. and weighs 62½ lbs.
 Diameter of circle x 3.1416 = circumference.
 Diameter of circle squared x .7854 = area.
 Atmospheric pressure is 14.7 lbs. per sq. in. at sea level.
 13½ cu. ft. of air weighs 1 lb.

Table of Avoirdupois Weight

16 drams = 1 ounce (oz.)
 16 ounces = 1 pound (lb.)
 100 pounds = 1 hundredweight (cwt.)
 2000 pounds = 1 ton (T.)
 2240 pounds = 1 long ton (L. T.)

Table of Troy Weight

24 grains (gr.) = 1 pennyweight (dwt.)
 20 pennyweights = 1 ounce (oz.)
 12 ounces = 1 pound (lb.)

Table of Apothecaries' Weight

20 grains (gr.) = 1 scruple (ʒ)
 3 scruples = 1 dram (ʒ)
 8 drams = 1 ounce (ʒ)
 12 ounces = 1 pound (lb.)

Table of Surface Measure

144 sq. in. = 1 sq. ft.
 9 sq. ft. = 1 sq. yd.
 30¼ sq. yds. = 1 sq. rod
 160 sq. rods = 1 acre
 640 acres = 1 sq. mile
 An acre measures 208.71 ft. on each side.
 A section of land is 1 sq. mile.
 A quarter section is 160 acres.
 A township is 36 sq. miles.



October 1944
Before overseas

Top Row (Left to Right)

Harrison ("Bill")
Pilot - Arkansas

Romey ("Bill")
Armorer - Texas

Siegel ("Big")
Tail Gunner Ohio

Malinowski ("Stan")
Nose Gunner N. Y.

Center Row

Batley ("Jack")
Radio Operator Penn.

Van Harsen (Bob)
Upper Gunner - Mich.

Bottom Row

Mac Lelland (Mac)
Co-Pilot - Indiana

Simmons (Al)
Navigator - Ind.

Valliere (Lee)
Engineer - Mass.

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MEMBER

Our Lady of Grace Squadron
(A Spiritual Union of Catholic Airmen)

CONDITIONS OF MEMBERSHIP

1. Weekly Communion.
2. Five Hail Mary's daily for members.
3. Act of Contrition and Hail Mary before entering the plane.

NAME

John Joseph Botley

Our Lady of Grace pray for us.

Father Matthew J. Coughlin
Chaplain, 49th Bomb Wing (H)