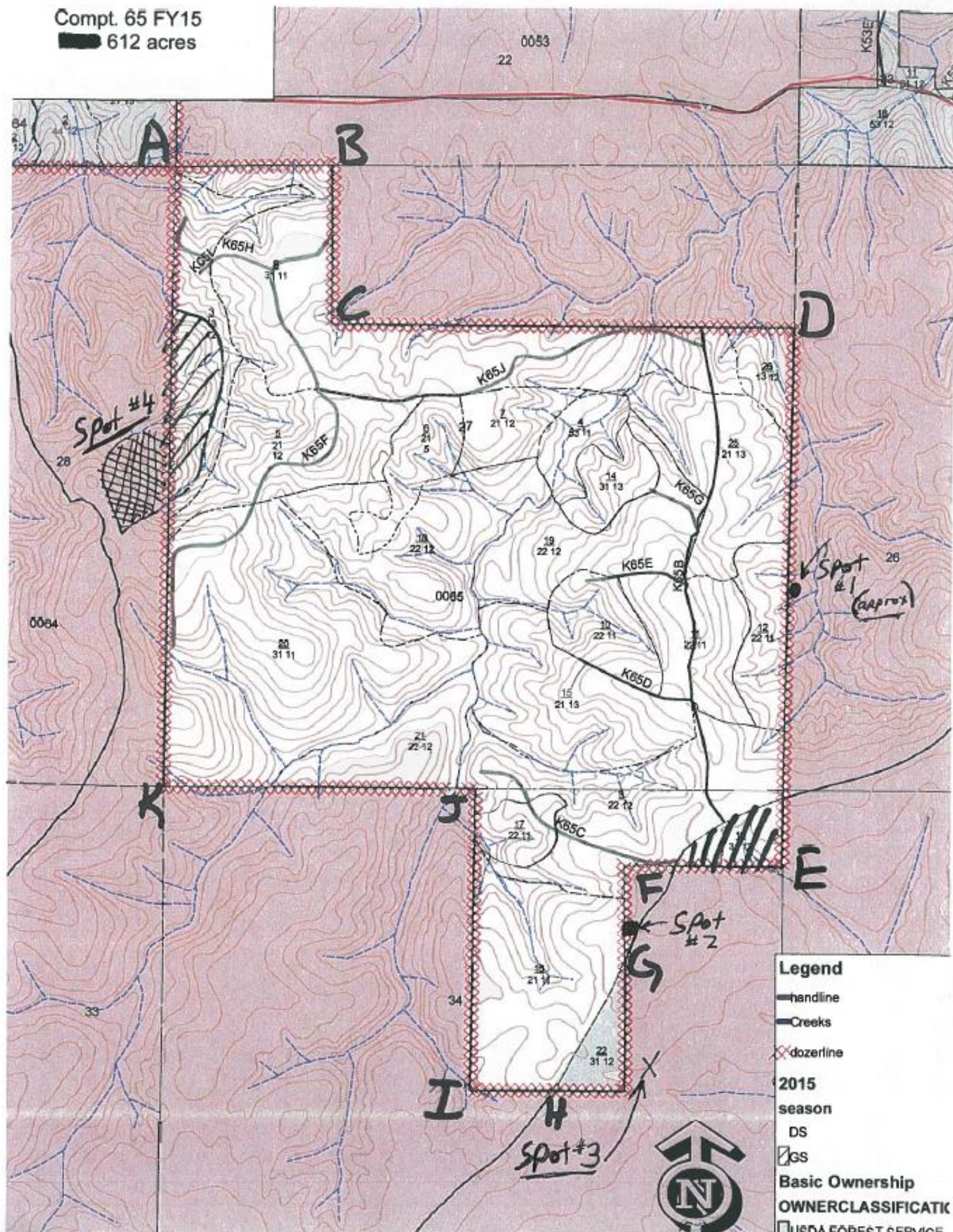


After Action Review of Comp. 65 Prescribed Fire
From January 29, 2015
Kisatchie NF

February 6, 2015

Compt. 65 FY15
 612 acres



On January 29, 2015, personnel on the Kisatchie NF executed a prescribed fire in Compartment 65. In the early afternoon, three spot fires were located and controlled. The following day a fourth spot fire was located. On February 4, all personnel on the prescribed fire gathered to conduct an After Action Review (AAR) of the prescribed fire at the request of the Forest Supervisor. Following the AAR in the Work Center, a site visit was conducted to look over the SE corner of the burn unit.

Chain of Events on Jan 29

A thorough briefing was conducted in the Work Center at 0900 on January 29. Resources depart and reported to assigned areas. The test fire was started at 1030 and resources began burning out base lines. Weather conditions were near what was expected.

Three spot fires occurred nearly simultaneously at approximately 1310. The first spot occurred between E and D and was located by a UTV operator. The spot was in a hardwood litter patch, measured approximately 20'X20', and was contained shortly after being discovered. The UTV operator followed the preplan and requested the dozer to assist. The Burn Boss also dispatched a T6 engine with operator (now identified as operator #1) and one RXCM (now identified as RXCM#1). The T6 had been patrolling the parish road from F to H. RXCM#1 was lighting and patrolling the private land F to G. RXCM#1 quickly briefed RXCM#2 that the N-S segment of dozer line between F-G had a spotty burnout in places with unburned yaupon near the line that needed patrolling. RXCM #1 and operator #1 drove to E and walked to Spot #1 just as Spot #2 and #3 were found.

RXCM#2 continued the lighting of the baseline from G towards H. About halfway between G and H, RXCM #2 met RXCM #3. RXCM #2 took RXCM #3 back to G to patrol the F to G private land. Just above G, RXCM #3 found spot #2 burning in hardwood/pine litter just south of a private residence near F...RXCM#3 began raking this spot out (spot was approximately 20'X50'). As RXCM#2 returned to the torch he left midway between G-H, Spot #3 crossed the parish road at H.

The RXB had intended to take advantage of the fuel and weather conditions and burn out the area from F to J...the area below K65C road. This would allow the helicopter to avoid firing in a confined, narrow corridor and ensure the smoke would exit the unit and not interfere with the helicopter operations. RXCM's were simultaneously lighting from J to I while F-G-H was being lit off. RXCM's on the J-I line report calm burning conditions, fire behavior was moderate with slow rates of spread. The private land west of the I-J line is composed of pine sawtimber which blocked almost all wind. RXCM#2 was unaware that progress was moving quickly along the J-I line.

As the RXCM's on the J to I line hit the corner at I, fire behavior increased significantly and quickly. The RXB was stationed on the parish road south of H with a clear view of H-I line. As the RXCM's came to corner I, the RXB observed a rapid increase in fire behavior. As the fire behavior increased, a running headfire developed. The RXB drove up to H and observed that RXCM#2 had not had time to light the baseline to H, leaving a gap in the baseline. The RXB picked up the torch RXCM#2 had set down and ran to light off the remaining section of line to H. As the RXB closed the line, the running headfire transitioned into a crown fire and crossed the parish road.

Fuel and weather conditions combined to cause the increase in fire behavior near H and I. The fuel load near H and I is significantly higher than other portions of this compartment and this area borders a clearcut on timber

company land. The private land south of the H-I line is a very recent clearcut. The lack of blocking vegetation allowed wind free access to the flaming front. The area north of the H-I line is flatter and wetter than the rest of the burn unit...the low, wet ground has produced an impressive over-abundance of yaupon which was needle-draped. That portion of the burn unit has not gotten a clean burn for many years due to being wet and shaded by yaupon. As fire behavior increased near I, the fire was able to climb into the yaupon with the help of the needle-drape. As the fire behavior increased, stronger in-flow winds lifted the fire into the canopy which was composed of pole sized pine.

The crown fire crossed the parish road into saw timber sized pine...the surface fire quickly followed. The understory had a very heavy load of needle-draped yaupon; this portion of C-65 has not been burned for a very long period due to the close proximity of a residence. When the fire crossed the parish road, RXCM #2 moved the RXB's truck and picked up a leaf blower and began structure protection around the residence just south of G and very near the landline. The RXB requested both dozers and the helicopter. The DAFMO brought the T6 engine.

Spot fire #3 moved quickly through the FS land just south of the residence near G...spreading to the east and north. Once the fire moved onto private land, it was mostly in short, cured pasture. A dozer worked on FS land near the residence then worked the south flank along the FS-timber land company landline and tied into a wet area. The AFMO acted as the IC of Spot Fire #3 and suppressed the fire with the T6 engine in the pasture along the north flank from the residence. RXCM #2 continued using the leaf blower in front of the T6 which became stuck in the pasture. UTV's with water arrived to finish suppression along with the leaf blower in the pasture. Spot Fire #3 totaled 19.75 acres.

Prior to ignitions, the District Ranger met with the landowner at the residence near G; during suppression efforts, the District Ranger was in contact with the landowners. Following suppression, the District Ranger, DAFMO, RXB, and a Sheriff's Deputy met with the landowner near G. There are two additional landowners involved, they have been contacted as well. The dozer did not push line on any of the landowners... a dozer line on timber company land was used. No material loss of any kind was observed on private land with the exception of burned pasture.

During suppression efforts, the helicopter remained overhead and provided intel for the RXB and DAFMO. The information provided by the helicopter crewmembers was most helpful to ground resources. The ship was dispatched from Alexandria without the fuel truck or bucket. Therefore it had no water dropping ability.

Chain of Events on Jan 30

Resources returned to C-65 at 1030 the following day to check lines per SOP. Spot Fire #4 was located at approximately 1320 approximately a half mile south of point A on timber company land. A hardwood snag near the creek used for a control line sent embers over the creek onto FS land. The spot fire eventually burned onto the timber company land and totaled approximately 5 acres and was contained that afternoon with handtools. District personnel spoke with the timber company representatives who had little concern.

Findings

Commendations:

Resources on the C-65 prescribed fire deserve commendations for the following:

- The District Ranger was present throughout the day and coordinated the dealing with a landowner.
- The DAFMO and RXB seamlessly implemented the incident within an incident preplan. The DAFMO took the IC role on Spot Fire #3 and the RXB returned to the prescribed fire.
- Numerous personnel took part in protecting a private residence in a difficult to defend WUI location with numerous resources at risk without taking undue risk to themselves.
- The Burn Plan requires a minimum of 14 personnel. A total of 28 were on hand. Kinds and types of resources required by the Burn Plan were met. The Prescription in the Burn Plan was reasonable and was not exceeded.

Lessons Learned:

- The RXB intended to burn out the entire F-G-H-I-J block. However, the burnout of the baseline from G to H did not occur in time. The RXCM's carrying the G-H line did not know that J to I RXCM's had closed on point I so quickly. When the unpredicted fire behavior increased rapidly at I, there was no time to finish the G-H baseline. Communication and coordination between the RXCM's burning out G to H and J to I could have been improved. The RXCM's on the F-G-H line were occupied with lighting and holding. RXCM's on J-I knew that it was an up-wind line and that it did not need to be burned out early in the day. The low to moderate fire behavior on the J to I line allowed rapid line completion and gave no indication of the fire behavior at point I would change rapidly.
- All participants gained valuable experience and respect for edge effect. The clearcut south of H-I created unexpected wind speeds and wind direction than what was observed in other portion of the C-65 away from the edge. As fire became established at point I, it began to climb in the dense yaupon and needle-drape, which increased the in-flow winds, which in turn lifted the fire through the understory and into the pine canopy.
- FMO's and Burn Bosses may want to request that the helicopter fly to the helispot with the bucket flown internal if the fuel service truck is not ordered. The IC and RXB asked for bucket operations, but the ship did not bring the bucket as the service truck was not ordered.

Photo 1: Map of Spot Fire #3. This map shows the three landowners with residences and outbuilding included. The spot fire is 19.75 acres on private land. The blue line is the parish road. The cross-hatched area is Spot Fire #3.

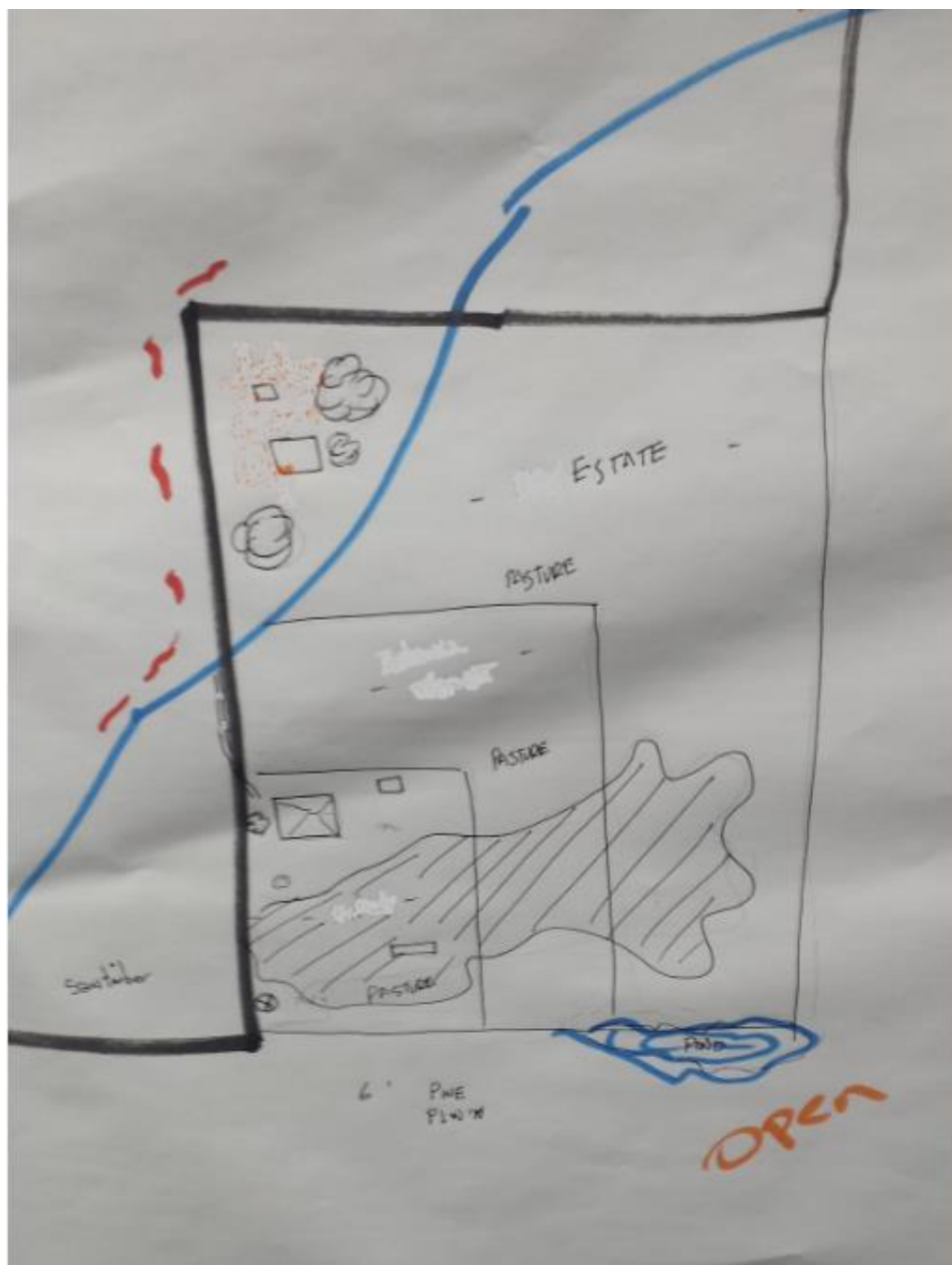


Photo 2: Aerial photo of the SE corner of C-65 showing the three landowners and the location of the residence and pastures.

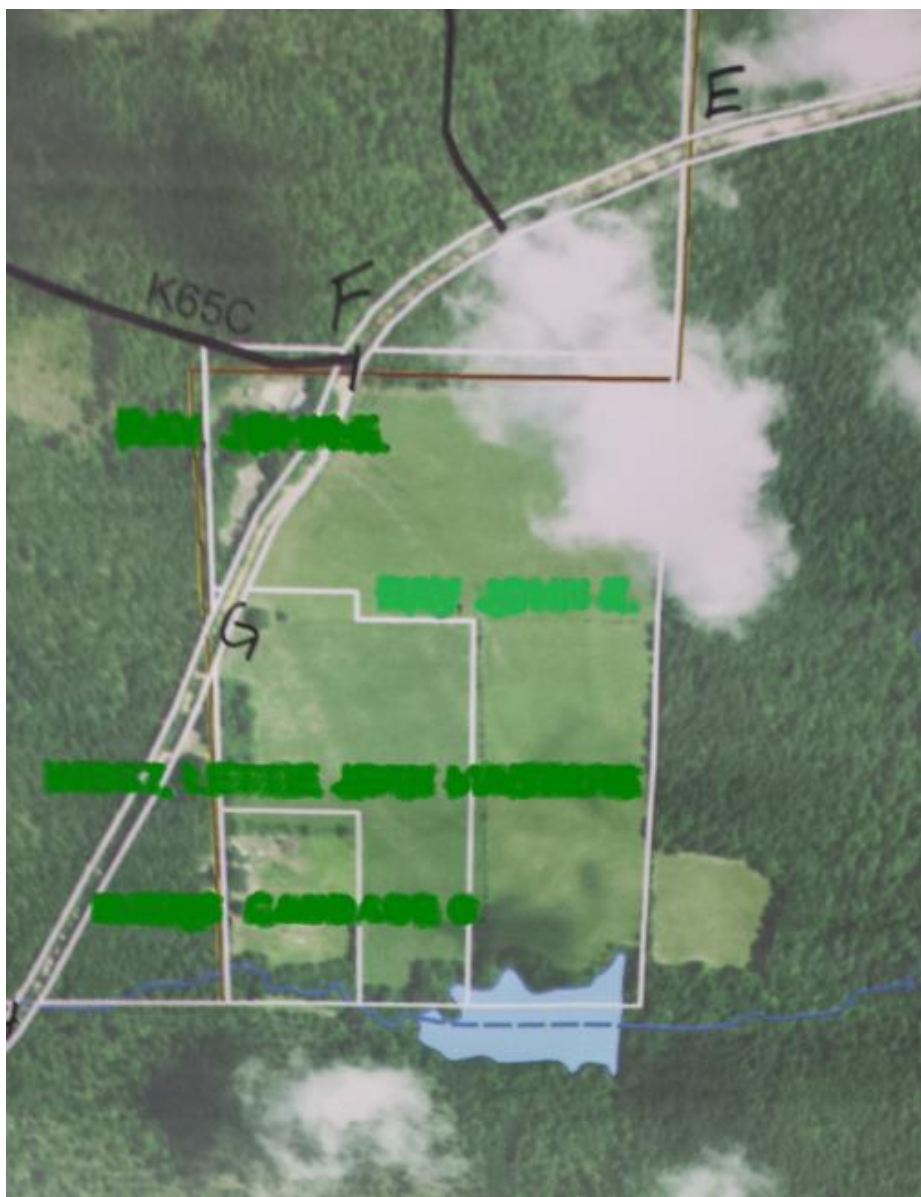


Photo 3: View taken just north of point H looking to the south showing the clearcut.



Photo 4: Fuels at point H looking to the west. This area is wetter than the rest of the compartment and has not had a good burn history. Yaupon was 10-12+' in height and needle-draped. Pole sized pine in overstory.



Photo 5: Just north of H, looking west. This is the point where the canopy fire crossed the parish road. There was heavy understory and pole sized timber.



Photo 6: Just north of point H, looking east. This is the point where the prescribed fire left the burn unit. There was a very heavy needle-draped yaupon understory and mature sawtimber pine. The fire did not carry in the canopy but burned intensely on the surface due to fuel loading.



Photo 7: This is the unburned portion of the FS block near the residence at point G. Notice the heavy needle-drape and thick yaupon understory. This is typical of the fuel loading in the portion of C-65 outside the burn unit and adjacent to the residence near point G.



Photo 8: Fuels in a majority of the burn unit. This photo was taken near point E.

