

SOMERVILLE FIRE NO. 3 OF 1969/70.

REPORT BY F/R. BUKELIS.

In the afternoon of Saturday November 1st, 1969, a fire in Compartment 55 burnt 1.4 acres of pines. Phoscheck was used and a Red Action, lasting 35 minutes, became necessary.

Details are given here under the following headings:

1. Sequence of events.
2. Topography and ground fuel.
3. Weather and Fire Behaviour.
4. Suppression and Phoscheck.
5. Damage.
6. Costs.
7. Comments and Notes.
8. Scale plan.
9. Comments by Inspector Lejuene (addendum):

1. Sequence of Events.

- 1445 Fire seen from Somerville Tower. Indirect view O/S Boyd to investigate.
- 1447 Boyd departs in H/D Truck.
- 1450 Boyd reports back; Fire in pines. Need help.
- 1451 Bukelis directs Woods and Polgar to take Phoscheck to the fire. Then departs from H.Q. in L/Duty.
- 1455 Bukelis arrives at fire. H.D. pumper won't start. Calls Red Action. Starts extinguishing with L/D pumper.
- 1457 H.D. Pumper started. Boyd plus 1 volunteer commence spraying at N.W. flank to cut off headfire.
- 1500 Phoscheck pumper arrives and commences spraying along extraction tracks clockwise around head fire.
- 1502 Bukelis shifts L/D to N.E. side to retard spread of headfire, extinguish spots and direct Phoscheck application.
- 1510 Fire Brigade arrive and commence spraying W. flank and raking E. flank.
- 1515 O/S Feast arrives in H.D. directed to W. flank.
- 1520 By now Boyd with H/D and Fire Brigade with hand tools have secured most of E. flank. Phoscheck has been laid around headfire. Phoscheck truck and crew still required there until other pumpers become available. Wind now from South and giving a little trouble on W. flank, attended by F/Brigade pumper and H/D from Como.
- 1528 Perimeter now sufficiently secure to handle with present forces. Bukelis cancels Red Action but requests Gngangara H/D to continue on its way to help mop up.

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Sequence of Events cont.

- 1537 Messrs. Meacham, Hewett and Ashcroft arrive.
- 1544 Somerville Tower reports smoke near Cpt. 63.
- 1545 Hewett & Bukelis leave Cpt. 55 to check out report.
- 1547 Lejuene & K&sners already near Cpt. 63, smoke is outside.
- 1600 Mr. Meacham leaves.
- 1615 Gngangara H/D arrives(F/R plus 4).
- 1622 Fire Brigade leave.

By 1930 all outside forces and officers have left.

Somerville H/D and 1 man remain on continuous patrol and limited mop up in 2 shifts between 8 p.m. and 7 a.m. of following morning. Several intermittent patrols by Bukelis and Burdett throughout Sunday.

Fire black out by 8.a.m. Sunday morning.

2. Topography and fuel.

The site has a gently sloping SW aspect and is only 2½ chains inside plantation perimeter.

The 16 year old pines are in an open stand of 100 trees per acre.

Green canopy level is 30 feet. These factors account for very good access by S.W. winds.

Slash from heavy thinning in 1966 was partly burnt in the winter of 1967 and reburnt with good fuel reduction in 1968. Thus the needlebed is only about ½" thick and tops on the ground are bare wood without needles. An exception is the Northern portion of the fire which was in heavier needlebed - see attached plan.

3. Weather and Fire Behaviour.

Once again wind was the main cause of rapid spread. The Somerville Tower wind reading at 1500 hrs. was 10 to 23mph and at 1445 gusts up to 28 mph where observed. This would account for the relatively large size of the fire before the smoke could be seen rising above the trees.

Weather readings (at Wanneroo) were :

<u>Time.</u>	<u>Wet</u>	<u>Dry</u>	<u>R H</u>	<u>Wind</u>	<u>F.D.R.</u>
1400	68	59	60	WSW 18	1.1 green
1600	70	60	56	SW 20	1.4 green

For obvious reasons the rate of headfire spread could not be measured. This, in fact, is the case with all pine fires of short duration.

A rough estimate is 8 ft. per minute.

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Weather and Fire Behaviour cont.

Flame heights averaged an estimated 2 feet in the Southern portion and 3 or 4 feet in the Northern.

This difference was due to winter burning - see plan. Also, at the headfire, flames reached up to 10 feet and ignited a few crowns during a gust of wind. This occurred just before the fire reached the Phoscheck strip.

Spotting was comparatively light and reached only up to 30 yards.

4. Suppression and Phoscheck.

Mechanical trouble with the first H.D. pumper (CC20) made the situation precarious at the early stage and a Red Action was called even before the 2nd H.D. arrived with Phoscheck.

Phoscheck was laid across the path of the headfire in a 4 chain L-shaped strip with an average width of 20 feet. About 300 gallons were used.

This, together with plain water at the front flanks checked the headfire and thus served its purpose. The remainder of the perimeter was extinguished with plain water in a routine manner.

Despite the heavy application of Phoscheck the fire burnt through it on a width of 40 feet, but its rate of spread was only about 1 ft/minute.

5. Damage.

130 to 140 trees were killed or badly damaged and are now being felled. This will produce about 35 lds O/B of which some 60% are in the 7" to 12" diameter classes.

6. Costs.

Somerville only : \$44 Wages plus \$30 Plant. This includes all patrolling, but not cost of Phoscheck.

Costs from other divisions have not yet been advised. Estimated at \$90.

7. Comments and Notes.

The cause of the fire is unknown - suspected deliberately lit. 2½ hours earlier another fire was lit in the pines less than 30 chains East and yet another on Sunday a week later: 12 chains West. These were duly seen from the tower and put out by the Somerville crew before they could cause any damage. Ease of suppression and absence of damage were greatly aided by previous winter burning.

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COMMENTS.

H.D. Outfits.

A Red Action would not have been called had the first H.D. pumper started when required. Also the "Phoschek Truck" pumper failed after laying the trail.

This was a useful lesson and in future H.D. units in Wanneroo-Metro. will be given the sort of attention that one would expect with an aircraft.

Organisation.

The attack and back up organisation worked extremely well. However, in future, messages from the Fire Boss re sending certain forces to the fire will go to Wanneroo office for rationalisation. In this case as it happened, the Wanneroo H.D. was much closer to the fire than the Gngangara H.D. which was instructed to proceed.

Effect of Past Burning.

Without the past burning it is probable that this could have developed into a much bigger fire requiring all the back up forces.

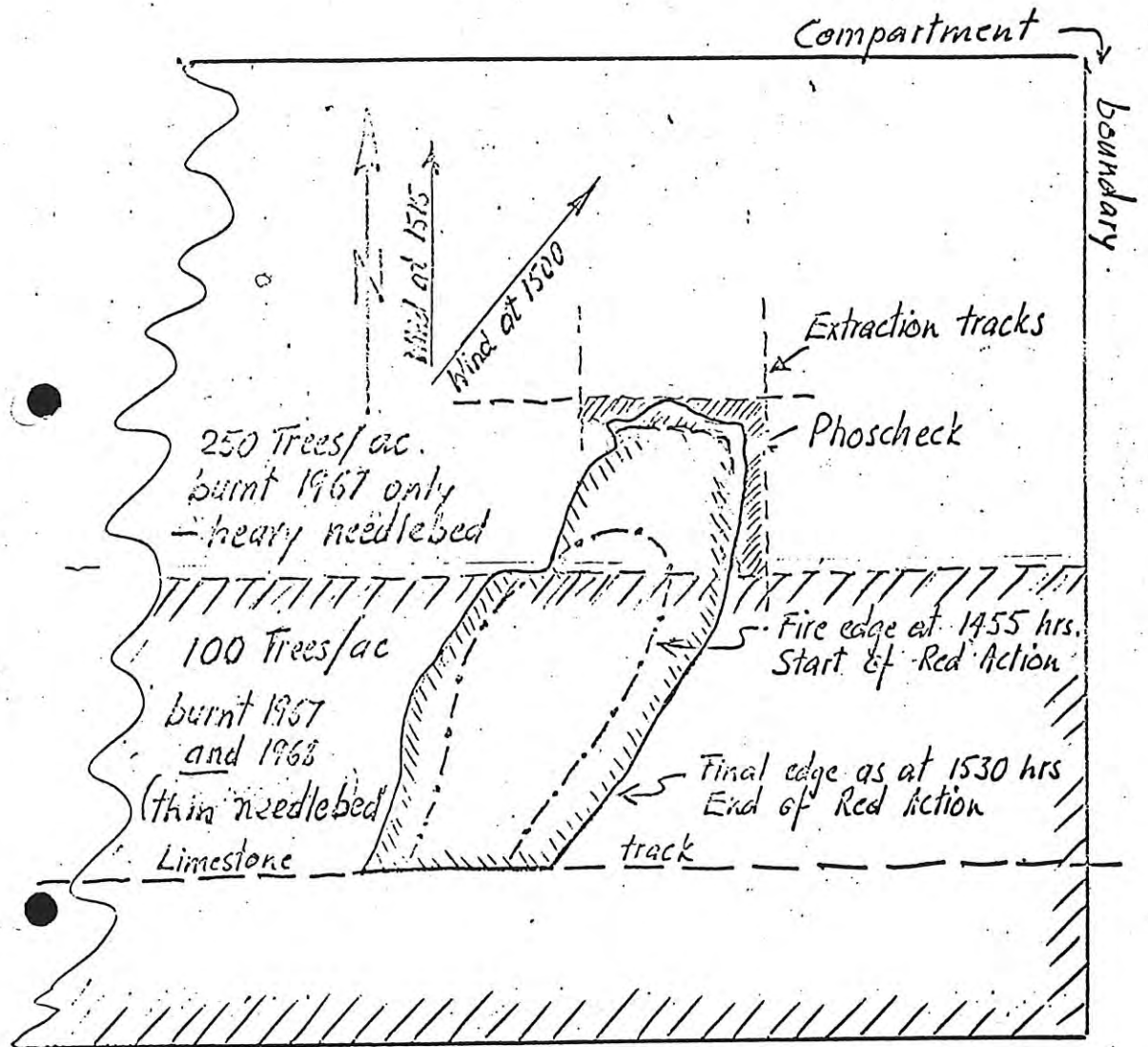
Phoschek.

This material was very effective but there is little doubt that the relatively narrow and approachable head fire could have been stopped with water. It appears that a more serious situation is required to thoroughly test phoschek.

D.R. LEJEUNE,
INSPECTOR.

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Date of Fire: Nov 1st — Compt 55 — Area: 1.4 ac



Scale: 2 chains to one inch

N.B. 11/11/69