Australian Government
Australian Transport Safety Bureau

Loss of control and collision with terrain involving BRM Aero Bristell S-LSA aircraft, VH-YVF

Moorabbin Airport, Victoria on 12 December 2019

ATSB Transport Safety Report
Aviation Occurrence Investigation (Short)
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Postal address: PO Box 967, Civic Square ACT 2608
Office: 62 Northbourne Avenue Canberra, ACT 2601
Telephone: 1800 020 616, from overseas +61 2 6257 2463
Accident and incident notification: 1800 011 034 (24 hours)
Email: atsbinfo@atsb.gov.au
Website: www.atsb.gov.au

Addendum

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Safety summary

What happened

On the morning of 12 December 2019, a student pilot took off for a series of solo circuits in a BRM Aero Bristell, registered VH-YVF, at Moorabbin Airport, Victoria. Just after crossing the runway threshold for the first touch and go landing, witnesses observed the aircraft about 10 ft above the runway, when it suddenly pitched up to about 40 ft. The left wing dropped, with the bank angle increasing to the point where the aircraft became inverted.

The witnesses described what they saw as similar to the aircraft being in the first half rotation of a spin entry. The nose then dropped and the aircraft impacted terrain in a steep inverted attitude. The student pilot was severely injured, and the aircraft was substantially damaged.

What the ATSB found

The ATSB found that the pilot commenced a go-around at low level when the aircraft deviated from the runway centreline in crosswind conditions. During the go-around, the aircraft aerodynamically stalled and commenced a spin.

It was also identified that the student pilot did not have the necessary qualifications and skills to safely operate the Bristell solo.

Finally, the required Soar Aviation solo flight dispatch procedures were not followed. As a result, it was not identified that the student pilot was not authorised for, nor met the required competencies, to conduct the flight.

What has been done as a result

Soar Aviation implemented enhanced measures to ensure student pilots were fully briefed and authorised, before conducting a solo flight. These amended procedures included changes to the aircraft booking procedure and having aircraft keys stored such that they were only accessible by flight instructors.

Soar Aviation ceased flight training on 29 December 2020.

Safety message

Familiarity with an aircraft's specific systems, controls, handling and limitations is essential for safe flight.

Safety-critical procedures and regulations are in place to ensure that pilots have the required level of skill and experience to safely operate an aircraft. The outcome of this accident, which could just as easily have been fatal, illustrates a consequence of deviating from them.

The investigation

Decisions regarding whether to conduct an investigation, and the scope of an investigation, are based on many factors, including the level of safety benefit likely to be obtained from an investigation. For this occurrence, a limited-scope investigation was conducted in order to produce a short investigation report, and allow for greater industry awareness of findings that affect safety and potential learning opportunities.

The occurrence

On the morning of 12 December 2019, a student pilot conducted a pre-flight inspection of a BRM Aero Bristell S-LSA,[1] registered VH-YVF, in preparation for a solo flight. A second student (student 2) also conducted a pre-flight inspection of their aircraft at the same time and, after completing their aircraft checks, they returned together to the flight school's main building. Student 2 reported they then 'walked into navigation planning to organise dispatch of my flight' however, they observed that the other student pilot did not. Student 2 later observed the student pilot walking back to the where the aircraft were parked, with their 'flight bag and aircraft folder'.

The student pilot had the aircraft keys however, they had not endorsed the aircraft's maintenance release or conducted the required solo flight briefing and sign out procedure with a flight instructor. The student pilot stated to the ATSB that they believed they were authorised for the solo flight. However, they also reported a level of confusion as to whether the solo dispatch procedure was required at their stage of training.

At 0950 Eastern Daylight-saving Time,[2] the student pilot was cleared by air traffic control (ATC) to take off from runway 17L[3] at Moorabbin Airport, Victoria, for a series of circuits. The pilot reported feeling 'uncomfortable', with the aircraft and its systems during the flight, and that they surmised this was due to their limited experience in the Bristell.

While on the downwind leg of the first circuit, the student pilot advised ATC of their intent to conduct a touch and go, which was subsequently cleared at 0954. During the approach to the runway, the student pilot described that they felt the nose 'wanted to pitch up', even though they believed the aircraft was neutrally trimmed.

The student pilot stated that, just after crossing the runway threshold, what felt like a sudden gust of wind pushed the aircraft to the left of the runway centreline. At that point, the student pilot decided to initiate a go-around. The pilot reported that, after commencing the go-around. the aircraft was then 'ripped up very violently, straight up into the air and then ripped very violently toward the left'. They attempted to recover with full right rudder 'as far as it would go, but by that time it was too far gone' (Figure 1).

Witnesses reported observing the aircraft, about 10 ft above the runway, when it suddenly pitched up to about 40 ft. The left wing dropped, with the bank angle increasing to the point where the aircraft became inverted. The nose then dropped, and the aircraft impacted terrain in a steep inverted attitude. The witnesses described what they saw as similar to a spin entry to the left.

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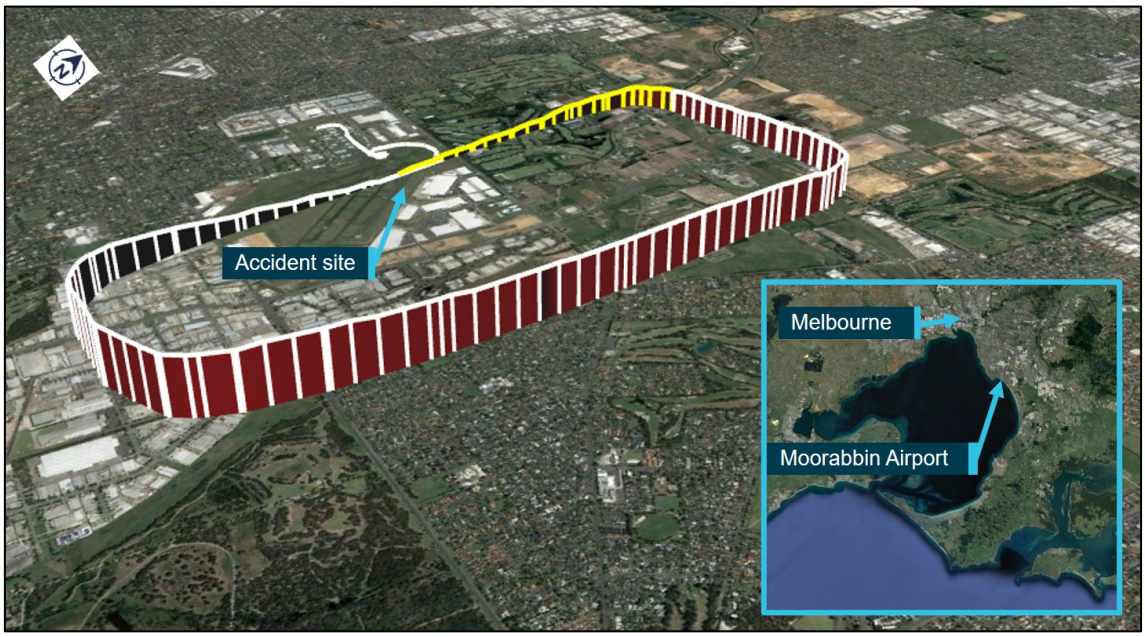
1 An S-LSA is a special light-sport aircraft, where the certification and continuing airworthiness is the responsibility of the manufacturer. The aircraft are manufactured to defined standards, which are then accepted by the regulator.

2 Eastern Daylight-saving Time (EDT): Coordinated Universal Time (UTC) + 11 hours.

3 Runway numbering: the number represents the magnetic heading closest to the runway (runway 17 at Moorabbin Airport is oriented 164° magnetic) and L indicates the left-most of two parallel runways.

Figure 1: Flight track, with the approach to land phase highlighted in yellow



Source: Google Earth, annotated by ATSB using VH-YVF flight data

ATC also observed the accident and initiated an emergency response. The student pilot was severely injured, and the aircraft was substantially damaged. There was no post-impact fire.

Context

Pilot information

The student pilot commenced flying training with Soar Aviation in March 2019 and gained a Recreational Aviation Australia (RAAus)[4] Pilot Certificate on 30 September 2019. The student pilot then converted their pilot certificate to a Civil Aviation Safety Authority (CASA) Recreational Pilot Licence (RPL), which was issued on 13 November 2019.

Operation of VH-registered aircraft such as VH-YVF (YVF) required a minimum of an RPL. In order to exercise the privileges of the RPL, the student pilot was first required to complete an aircraft flight review. At the time of the occurrence, this had not been completed. In addition, the student pilot did not hold an RAAus endorsement for 'in-flight adjustable propeller', nor the CASA-equivalent 'manual propeller pitch control' as fitted to the Bristell (see the section below titled *Aircraft information*).

The student pilot had accrued about 72 hours flight experience, which included 10 hours of solo flight, all in the RAAus-registered Aeropakt A-32 Vixxen (refer to the *Aircraft information* section). The student pilot's last recorded solo flight was on 21 October 2019.

The student pilot underwent their baseline CASA medical examination in March 2019 and at the time of the accident held a current Class 1 medical certificate, with nil restrictions or conditions.

Aircraft information

BRM Aero Bristell

The BRM Aero Bristell S-LSA is a two-seat, all-metal, low-wing aircraft, with fixed tricycle landing gear, steerable nose wheel and stick control. YVF, serial number 330, was powered by a Rotax

[4] Recreational Aviation Australia (RAAus) administers ultralight, recreational, weight shift microlight and LSA aircraft. RAAus train and certify pilots, flying instructors and maintainers, register their aircraft fleet and oversee a large number of flight training schools across Australia.

912 ULS horizontally-opposed four-cylinder normally aspirated engine and a variable pitch MT-Propeller. The aircraft was manufactured in the Czech Republic in 2018 and registered in Australia the same year.

YVF was flown for 2.3 hours on the day before the accident, with no reports of any issues, and had a total time of 997.8 hours. A review of the maintenance log books did not identify any prior accidents or major repairs.

Figure 2: VH-YVF

Source: Used with permission

The aircraft manufacturer's *Aircraft Operation Instructions* manual had the following guidance on headwind and crosswind limitations (Figure 3).

Figure 3: Bristell wind limitations

5.2.8 Demonstrated crosswind performance

Max. permitted head wind velocity for take-off and landing	20	m/s	40	knots
Max. permitted cross wind velocity for take-off and landing				
Average pilots	8	m/s	15	knots
Skilled pilots	11	m/s	22	knots

Source: Soar Aviation

With regard to the different crosswind limitations, the manual did not define the terms 'average' or 'skilled' pilots.

Aerokprakt A-32 Vixxen

The Aeroprakt A-32 Vixxen (Vixxen) aircraft is a Ukranian-built two-seat, high-wing, tricycle gear ultralight. The Vixxen is powered by a Rotax 912ULS engine and a 3-blade KievProp

ground-adjustable propeller.[5] In addition, the Vixxen is configured with an all-flying horizontal 'stabilator'[6] and conventional flight control yoke.

Figure 4: Typical A-32 Vixxen

Source: Ian McDonell

Differences in handling between the Bristell and the Vixxen

When asked about the differences between the Bristell and the Vixxen, in general handling and stall characteristics, flight instructors advised that:

- it would typically take three to four flights to get used to the new type, particularly yoke versus stick
- the Bristell's elevator was significantly smaller and therefore less sensitive
- significant forward movement of the Bristell's flight control stick is required with the in-flight application of power to counter a pitch-up tendency
- in a stall, the Bristell 'really did like to drop a wing', usually the left, and 'if it does so, it is not normally as gentle as other planes that I've flown …, if I was to compare it to the Vixxen, I would say you'd want to be much more aware of what you're doing in the Bristell'.

Site and wreckage examination

Examination of the wreckage (Figure 5) did not identify any evidence of pre-existing faults or engine issues which may have contributed to the loss of control.

The site and wreckage examination identified that YVF impacted terrain in a nose-down, inverted attitude. In addition, damage to the airframe and engine was indicative of the aircraft being in a moderate spin/yaw to the left, at the point of impact. This was consistent with witness reports that the aircraft pitched up, rolled to the left and impacted the terrain inverted, in what appeared to be the commencement of a spin.

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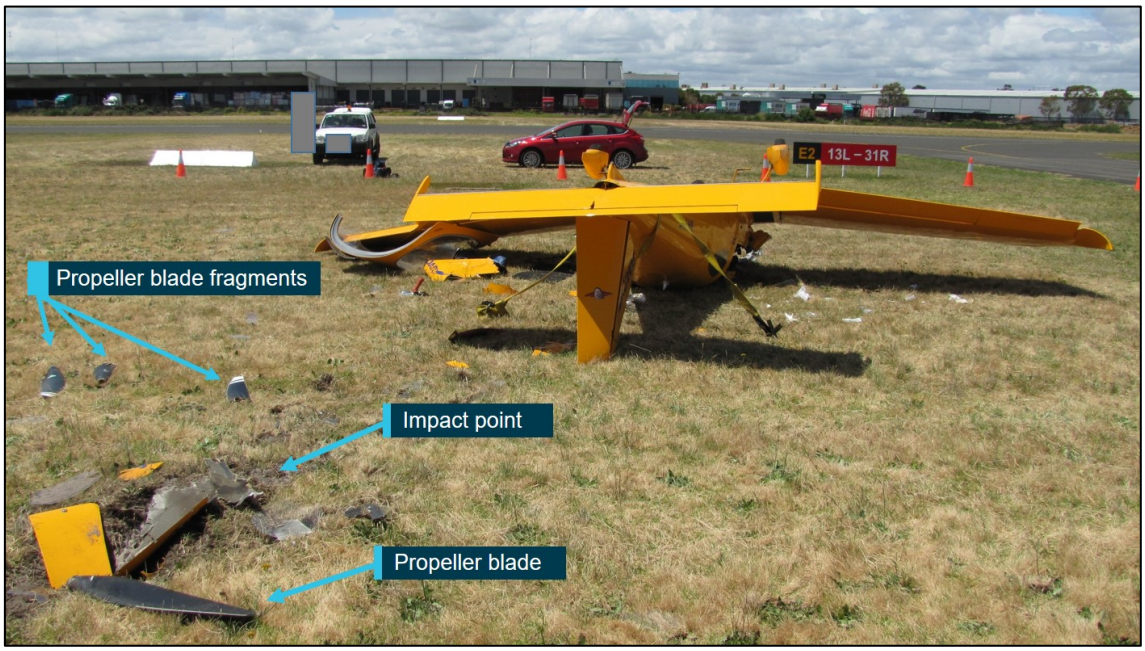
[5] A ground-adjustable propeller can be adjusted between pre-set limits of coarse and fine pitch, to optimise the aircraft for flying conditions. Following adjustment, only on the ground and when the engine is not running, its operation is similar to a fixed pitch propeller.

[6] A stabilator is a fully movable aircraft stabiliser. It serves the same functions of longitudinal stability, control and stick force requirements otherwise performed by the separate parts of a conventional horizontal stabiliser and elevator.

Figure 5: Accident site



Source: ATSB

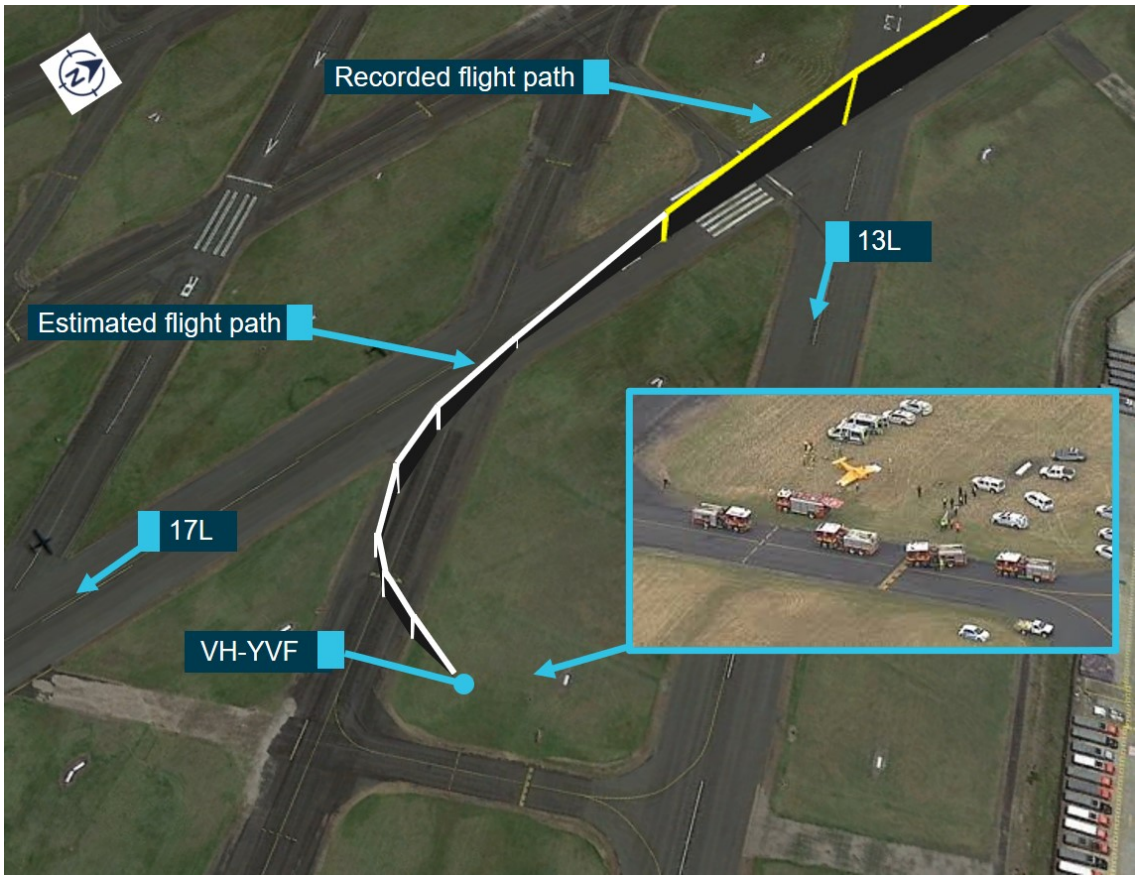
Recorded flight data

The aircraft was fitted with a Garmin G3X avionics system, which was an integrated flight instrumentation, position, navigation and communication system. The G3X unit had a flight data logging feature which automatically stored flight and engine data to its memory module.

The ATSB was able to download the data from the occurrence flight however, the data stopped just as the aircraft flew over the runway 17 threshold (Figure 6). It is likely the final seconds of data were lost due to the interruption of electrical power to the unit at impact. The last 5 seconds of recorded data captured:

- indicated airspeed reducing from 60 to 51 kt
- altitude decreasing from 106 ft to 76 ft
- vertical speed stable at -255 fpm
- roll no more than 5° either side of wings level
- pitch increasing from about -0.5 to +5.0° but not stable
- yaw varying from 0 to -5°/s
- wind speed and direction: stable at 223° and 15 kt (13 kt crosswind)
- engine RPM decreasing from 3,730 to 2,580 and fuel flow relatively stable at 2.2-2.4 gallons/hr
- GPS track was aligned with the runway centreline.

Figure 6: Accident site overview



Source: Google Earth and ATSB, annotated by ATSB

Weather

The Bureau of Meteorology (BoM) automatic weather station at Moorabbin Airport recorded observations at one-minute intervals (Table 1), with the loss of control occurring at about 0955. The temperature was steady, at about 15°C, at the time of the occurrence.

Table 1: Moorabbin Airport weather observations

Time	Wind (kt)	Wind direction - magnetic	Max gust (kt)
0952	13	229	15
0953	11	233	13
0954	13	232	15
0955	12	226	15
0956	12	247	14

The crosswind component at the time of the loss of control was calculated to be about 13 kt, accounting for the observed 15 kt gust. The Moorabbin automatic terminal information service was advising of a 12 kt crosswind at that time and the student pilot reported noting this during the flight.

Soar Aviation procedures

Gobel Aviation, trading as Soar Aviation (Soar), was a CASA Part 141 authorised flight training organisation. Soar provided flight training from ab-initio through to obtaining a commercial pilot licence (CPL). Soar's training syllabus, in conjunction with the Soar Operations Manual and CASA Part 61 MOS *Competencies into individual flight lesson for training and assessment*, outlined the competency requirements for each phase of the flight training, including suggested lesson content

and duration. Where a pilot required additional flying training to complete a competency, these flights could be added to the training schedule.

Students typically commenced training on the RAAus-registered Aeroprakt A-22 Foxbat or Vixxen aircraft, and then transitioned to the VH-registered Bristell for the command-building flights during the CPL phase. The syllabus identified 3 hours of familiarisation flight training when transitioning between aircraft types.

Solo training flight procedures

Soar Advanced Flight Training Operations Manual Part 3B *Conduct of training operations* detailed the procedures for 'authorisation of training flights'. The procedures for flight preparation and planning, 'prior to any training flight' included pre- and post-flight briefings and that 'the flight is authorised by an approved person'. The student pilot's records showed that they had 'read and understood' the procedures. In addition, they had followed these procedures during their flight training on the Vixxen.

The procedure for solo flights stated that 'the authorising instructor will only dispatch the flight' when they had confirmed 13 checklist items, which included:

- the student had completed all training and examinations as prescribed by the syllabus for the solo flight
- the student flight training records indicate that they have achieved the required standard for all elements of competency for the flight, including flight crew licence and endorsements, as applicable
- the student had been briefed on the objectives, conditions and limitations of the intended solo flight, including that task or route to be flown, number of circuits (if applicable), traffic and ATC consideration, and actions to be taken during an emergency
- the student was clear on what they are authorised to do while on their solo flight
- the actual and forecast weather conditions, including runway crosswind and last light limitations were suitable considering the student's previous competence in similar conditions
- the daily inspection was complete and certified
- solo risk matrix has been completed and authorised by a flight instructor.

The solo risk matrix form included considerations for aircraft serviceability, pilot experience and weather. Pilot experience included a check for '5 hours dual training on aircraft type'. The weather section included consideration to wind (gusts and turbulence) and crosswind (Table 2), among other factors.

Table 2: Solo risk matrix crosswind and wind gusts component

Crosswind	Forecast gusts	Risk rating
>= 10 kts for Ab-initio, 14 kts for Navigation (Nav), aircraft limit for commercial pilot licence (CPL) phase	20 kt or higher	3
<=8 kt for Ab-initio, 10 kt for Nav, 14 kt for CPL phase	10 kt or higher	2
<= 5 kt for Ab-initio, 8 kt for Nav, 10 kt for CPL phase	Less than 10 kt	1

The risk rating detailed that dispatch of the flight, at level 3, was at the discretion of a Grade 1 instructor. Level 2 was at the discretion of a Grade 2 instructor and level 1 was 'limited by the student's personal minimums'. The solo risk matrix form was to be signed by the student and authorising instructor, prior to flight.

Soar advised the ATSB that, had a solo flight been scheduled for the student pilot, in a Vixxen, the risk assessment would likely have resulted in level 2 'at the discretion of a Grade 2 flight instructor'. This would factor in the pilot's skills and experience in the Vixxen, which indicated 10-14 kt crosswind for the equivalent skill level of the student pilot. Further, Soar advised that the instructor and the pilot would have reviewed the weather, and discussed operational aspects, prior to the flight being approved.

Flight booking system

Soar required students to book flights in advance, by liaising with operations staff, to ensure their flight training was progressing at an acceptable rate. An aircraft, and an instructor where applicable, were assigned to the booking however, the exact nature of the flight was not assigned until amended by the instructor, as part of the pre-flight briefing.

Bristell flight training

In preparation for their commercial pilot licence training phase, the pilot received a 2-hour familiarisation flight in a Bristell, on 11 December 2019. Due to weather limitations, the lesson entry report noted that the following required competencies were unable to be assessed:

- take off in a crosswind
- land aeroplane in a crosswind
- enter and recover from a stall
- recover from incipient spin
- perform recovery from missed landing.

The lesson entry report identified these items as competency grade 5 'the element has not been assessed'[7] and the instructor noted they were to be completed on a future flight.

The student pilot reported, from their recollection of the post-flight debrief with the instructor, that the aircraft flight review and endorsement for the manual pitch propeller control had been 'signed off'. Further, they believed they were advised by the instructor as 'you're good to go'. From this, the student pilot believed they were instructed, and authorised, to conduct a solo flight in a Bristell.

Despite that belief, the student pilot also advised the ATSB that prior to the solo flight on 12 December 2019, they were:

- feeling apprehensive, 'after only 1 hour of training' and still getting used to the different controls and trim mechanism
- aware that they hadn't received any crosswind or stall training
- only going to conduct circuits, instead of navigation practice, as they didn't feel comfortable flying the Bristell and wanted 'to get used it more'.

The flight instructor's recollection from the 11 December 2019 Bristell dual training flight included:

- describing the critical differences between the Vixxen and the Bristell
- the student pilot 'tended to pitch the aircraft more than necessary' and the importance of avoiding this was 'stressed a number of times in the circuit'
- the student pilot 'tended to allow the speed to drift down' during landing
- landings were fine but on the touch and go, with full power, tended to pitch up too soon
- the requirement to remind the student not to handle the Bristell like the Vixxen
- their belief that the student pilot 'definitely was not ready for a solo on that aircraft'.

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[7] Soar's competency grading scale ranged from 5 up to 1, where 2 was the level required before solo flight and 1 was where the student had achieved 'competency to the standard required for qualification issue'.

The instructor reported that they didn't specifically say the student pilot 'was not cleared for solo' flight but 'they don't normally do that, it is clear from the debrief''. In addition, the student pilot was advised of the requirement for stall training on their next flight. Finally, the lesson entry report had been endorsed by the both the instructor and the student, indicative of them having received and understood the post-flight briefing.

Following this accident, a number of procedural changes relating to the conduct of solo flights were implemented (see the section titled *Safety action*).

ATSB observation

On 19 February 2020, CASA issued *Safety Notice 01-2020* to pilots and operators of Bristell Light Sport Aircraft. CASA also updated this notice on 28 July 2020.

This Safety Notice included operational limitations in relation to particular activities associated with any flying training operation performed by BRM Aero Ltd, NG4 and NG5 Light Sport Aircraft operating with a Special Certificate of Airworthiness.

This included that these aircraft were:

> …prohibited from conducting an intentional stall of the aircraft, or from performing any flight training activities that could reasonably lead to an unintended stall…

Go-around

Whenever landing conditions are not satisfactory, a go-around should be initiated. A go-around is considered a normal procedure and, although it is not often required, with appropriate training, planning and preparation it should not result in increased risk.

The Federal Aviation Administration publication, The Airplane Flying Handbook, Chapter 8 (pages 12 and 13) provides the following guidance for go-arounds:

> Although the need to discontinue a landing may arise at any point in the landing process, the most critical go-around is one started when very close to the ground. The earlier a condition that warrants a go-around is recognized, the safer the go-around/rejected landing is. The go-around maneuver is not inherently dangerous in itself. It becomes dangerous only when delayed unduly or executed improperly…
>
> … Attitude is always critical when close to the ground, and when power is added, a deliberate effort on the part of the pilot is required to keep the nose from pitching up prematurely. The airplane executing a go-around must be maintained in an attitude that permits a buildup of airspeed well beyond the stall point before any effort is made to gain altitude or to execute a turn. Raising the nose too early could result in a stall from which the airplane could not be recovered if the go-around is performed at a low altitude.

The Civil Aviation Safety Authority Flight Instructor Manual (p47) provides the following guidance for instructor on go-arounds:

> The following points must be emphasised [by the instructor]:
>
> (iv) That large changes of trim may be experienced during this procedure.

Safety analysis

On the morning of 12 December 2019, a student pilot took off from Moorabbin Airport, Victoria, intending to conduct a series of circuits in a BRM Aero Bristell, registered VH-YVF. After passing the runway threshold during the first approach for a touch and go landing, the student pilot lost control of the aircraft and collided with terrain, on a grassed area alongside the runway.

The analysis discusses the student pilot's preparation for the flight in the context of the flight school's requirements, as well as the contributing factors that led to the loss of control and collision with terrain.

Solo flight dispatch procedure

Following completion of an instructional familiarisation flight in the Bristell the day before the accident flight, the student pilot incorrectly believed that they were 'authorised' to conduct a solo flight in the aircraft. The flight instructor who conducted the familiarisation flight acknowledged that, while they 'didn't specifically say that [the student pilot] was not cleared for solo', it should have been evident as the student had not conducted any cross-wind or stall training in the Bristell. Additionally, the post-flight briefing, signed by the student, detailed that these required sequences were to be conducted on the next flight.

Further, the student pilot continued with the solo flight, despite reporting they were 'not comfortable operating' the new aircraft type. They also advised their belief that, as they were in the 'command building' phase of their training, the solo flight procedures were not required. There was no statement to that effect in the Operations Manual. In addition, there was no evidence the student pilot sought to clarify whether or not they were authorised and/or if the solo procedures were required.

Had the solo flight approval procedures been followed, they would have identified that the student pilot had not yet achieved the competencies required for solo flight in the Bristell. More generally, following these procedures would have identified the hazard associated with the crosswind conditions and allowed an assessment of the risk for pilot's with limited experience on the aircraft type.

Aircraft handling

The student pilot had undertaken only one supervised training flight in the Bristell aircraft, which did not include any go-arounds, crosswind landings or stall training. Therefore, the student pilot's familiarity with the aircraft type was very limited.

The Bristell exhibits different handling characteristics to the other aircraft type the student pilot had previously operated. Specifically, instructors reported that it is less docile and has a stronger tendency to pitch up when engine power is applied for a go-around. The instructors also reported that the Bristell has less elevator authority to counter the nose-up effect and a greater tendency to drop a wing (usually the left) during a stall.

During the flare prior to touching down, the student pilot detected the aircraft drifting left of centreline, most likely due to the prevailing crosswind, and elected to commence a go-around. After initiating the go-around, they felt the aircraft forcefully pitch up, a behaviour consistent with instructor's description. Being unfamiliar with the aircraft type, the student pilot was not adequately prepared for this pitch up tendency and did not anticipate or respond effectively to prevent the aircraft stalling.

Once the aircraft stalled, it entered an incipient left spin. Recognising that recovery from the stall at such a low height may not have been possible, as the student pilot was unfamiliar with the aircraft's stall behaviour, their capability to prevent further rotation or recover the aircraft prior to the collision with terrain was also very limited.

Findings

ATSB investigation report findings focus on safety factors (that is, events and conditions that increase risk). Safety factors include 'contributing factors' and 'other factors that increased risk' (that is, factors that did not meet the definition of a contributing factor for this occurrence but were still considered important to include in the report for the purpose of increasing awareness and enhancing safety). In addition 'other findings' may be included to provide important information about topics other than safety factors.

These findings should not be read as apportioning blame or liability to any particular organisation or individual.

From the evidence available, the following findings are made with respect to the loss of control and collision with terrain involving BRM Aero Bristell, VH-YVF on 12 December 2019.

Contributing factors

- The student pilot did not have the necessary qualifications and skills to safely operate the Bristell solo.
- The required Soar Aviation solo flight dispatch procedures were not followed. As a result, it was not identified that the student pilot was not authorised for, nor met the required competencies, to conduct the flight.
- During the conduct of a go-around at low level, following deviation from the runway centreline, the aircraft aerodynamically stalled and commenced a spin.

Safety actions

Whether or not the ATSB identifies safety issues in the course of an investigation, relevant organisations may proactively initiate safety action in order to reduce their safety risk. All of the directly involved parties are invited to provide submissions to this draft report. As part of that process, each organisation is asked to communicate what safety actions, if any, they have carried out to reduce the risk associated with this type of occurrences in the future. The ATSB has so far been advised of the following proactive safety action in response to this occurrence.

Safety action by Soar Aviation

Soar Aviation advised the ATSB that they had implemented revised procedures to ensure an aircraft could not be taken by a student for a solo flight, either deliberately or inadvertently. Aircraft keys were now secured and could only be accessed by an instructor once the procedures had been followed and solo flight was authorised.

Further, the booking system was changed so that operations ‘reserve’ an aircraft for a student and allocated an instructor, with the instructor required to change the reserve booking to the authorised ‘flight lesson’.

Soar Aviation ceased flight training operations on 29 December 2020.

Sources and submissions

Sources of information

The sources of information during the investigation included:

- Soar Aviation
- the student pilot
- Civil Aviation Safety Authority
- BRM Aero
- witnesses
- Airservices Australia

Submissions

Under section 26 of the *Transport Safety Investigation Act 2003*, the ATSB may provide a draft report, on a confidential basis, to any person whom the ATSB considers appropriate. That section allows a person receiving a draft report to make submissions to the ATSB about the draft report.

A draft of this report was provided to the following directly involved parties:

- Soar Aviation
- the student pilot
- Civil Aviation Safety Authority
- BRM Aero
- Air Accidents Investigation Institute of the Czech Republic.

Submissions were received from:

- Soar Aviation
- the student pilot
- Civil Aviation Safety Authority.

The submissions were reviewed and, where considered appropriate, the text of the report was amended accordingly.

General details

Occurrence details

Date and time:	12 December 2019 – 09:55 EDT	
Occurrence category:	Accident	
Primary occurrence type:	Loss of control	
Location:	Moorabbin Airport, Victoria	
	Latitude: 37º 58.55' S	Longitude: 145º 6.13' E

Aircraft details

Manufacturer and model:	BRM Aero Bristell S-SLA	
Registration:	VH-YVF	
Operator:	Soar Aviation	
Serial number:	330/2018	
Type of operation:	Flying training	
Activity:	General aviation - other	
Departure:	Moorabbin Airport	
Destination:	Moorabbin Airport	
Persons on board:	Crew – 1	Passengers – nil
Injuries:	Crew – 1	Passengers – nil
Aircraft damage:	Substantially damaged	