

NEWSLETTER



... an AMA Award of Excellence Club!

Proudly serving the Huntsville community at the Captain Trey Wilbourn Model Airplane Field..

P. O. Box 2163

Huntsville, AL

September 2011

Officers		
President Peter Wick		256.883.7571
Vice President James Fowler		256.882.1784
Secretary Tony Coberly		256.882.7193
Treasurer Wayne Gladden		256.881.6048
Newsletter Editor Mike Norton		256.653.6632
Committee Chairs		
Field John Williams		256.656.9499
Programs James Fowler		256.882.1784
Publicity Bill Mitchell		256.650.5181
Safety Wayne Gladden (Chair)		256.881.6048
Web Editor Jerry Poplin		256.883.7588
Flight Instructors		
Tony Coberly	By App	256.882.7193
Rick Grim	By App	256.503.5847
Pete Wick	By App	256.883.7571
Bill Mitchell	By App	256.650.5181

Prez Sez

By the time this is published the pattern meet on the 10th and 11th will be over. Many thanks to the Contest Director for running it. At least this time we have excellent weather: not too hot, not too wet.

The nominating committee has been hard at work and we have a complete slate of officers for the upcoming RCRC election which will be held in November. These candidates will be announced at the September 20th club meeting.

At the September meeting, Bic Green, who went to Oshkosh with me and took a "boatload" of photographs of the airplanes there, will be presenting a slide show of some of his better photographs. Please remember that these are full-scale airplanes and you can see some of the massive control inputs that the pilots were putting into their airplanes. I have seen about half of the slide show and it is excellent. This is an event not to be missed. Thank you, Bic, for sharing your talent with us!

There will also be door prizes.

Let's try to have a quorum at this meeting; the last few meetings have been sparsely attended.

See you at the field,

Peter

Minutes Of The August 2011 Membership Meeting

The meeting was called to order at 6:58 PM. There were not enough members for a quorum.

Treasurer's Report

The treasurer took in \$802. He reported expenses of \$102.40. His report was approved.

President's Report

The vice president served as president. He said that the board would have a set of nominations for next year's officers.

We will have an event for the Warbird; Dan Baldwin is to be the CD.

We will have another pylon race. Alan Berard is the CD for this event.

A member suggested that we could ask the mower to mow the far fence.

I have removed the email addresses from all officers in the newsletter.

Program:

We had two programs. The first was presented by Fred Herrmann, and showed his airplane being flown with First Person View. He had a CD that he used to show us what was involved. It was quite impressive. The FPV cost was about \$800. You can watch it on

<http://www.youtube.com/watch?v=u3qa99Evko&feature=youtu.be>

The second program was presented by Basil Cooper, and illustrated the importance of the SPAD aircraft during WW1. He later gave me a writeup of this airplane, which I have placed later in the newspaper.

Minutes of the September 2011 Board of Directors Meeting.

The meeting came to order at 6:00 PM on September 6th. There were 3 board members present.

One of the members asked, "Can we have FPV? I thought that it must be controlled from the master and have another person that has a buddy box." We do not yet have an answer.

The proposed officers for next year are as follows:

Jim Fowler ----- President
Basil Cooper ----- Vice President
Robert Vanderzyl ----- Secretary
David Seymour ----- Treasurer
Jacob Provus ----- Newsletter Editor

SPAD

The company was set up in 1911 as *Aéroplanes Deperdussin*, becoming the *Société de Production des Aéroplanes Deperdussin* in 1912. Founder Armand Deperdussin (1867–1924) had been a traveling salesman and a cabaret singer in [Liège](#) and [Brussels](#), before making his fortune in the [silk](#) business. Deperdussin became fascinated by aviation in 1908, and in 1909 he established an aircraft works at [Laon](#). Deperdussin himself was not a noted designer, but he hired engineer Louis Béchereau (1880–1970) as technical director. Béchereau would be responsible for Deperdussin and SPAD aircraft designs thereafter.

The first SPAD aircraft built in any quantity were the [Deperdussin Monocoque](#) and the [Deperdussin TT](#). Both were mid-wing braced monoplanes, similar to [Louis Blériot's Blériot XI](#), and the [Nieuport 4](#), a layout popular with military and civilian clients in the period before the [First World War](#). The TT was a considerable export success, and 63 were built by the Lebedev company in [Russia](#). The model was purchased in small numbers by foreign clients from Deperdussin, and built at

[Highgate, England](#) by the **British Deperdussin Company**, run by D Lawrence Santoni and [John Cyril Porte](#). From 1911, Deperdussin was producing his aircraft from a new facility at [Grenelle](#), in the [Paris](#) suburbs.

They also created factories at [Le Havre](#) and [Juvisy](#) to build motor boats and waterplanes. The first [Schneider Trophy](#) competition was run on 16 April 1913, at [Monaco](#) and won by a Deperdussin floatplane at an average speed of 45.75 mph (about 73 km/h). Deperdussin "Monocoques" won the 1912 and 1913 Gordon Bennett Trophy races, set several world speed records and were the first airplanes to exceed 200 km/h.

In 1913, Armand Deperdussin ran into some legal problems and was arrested on charges of fraud. He had developed expensive tastes, and, in addition to funding competitions such as the [Gordon Bennett Cup](#), he entertained lavishly. The trading arm of the [Comptoir Industrial et Colonial](#) claimed that he funded this by fraudulently borrowing from them using forged receipts from his silk business as security. Essentially he ran what eventually became known as a Ponzi scheme. He remained incarcerated until he was brought to trial in 1917. Although it was claimed that he used much of the money to develop France's aviation expertise, he was convicted and sentenced to five years in prison, but as a concession for first offenders he was reprieved and released immediately. Deperdussin never recovered from the incident and committed suicide in 1924.

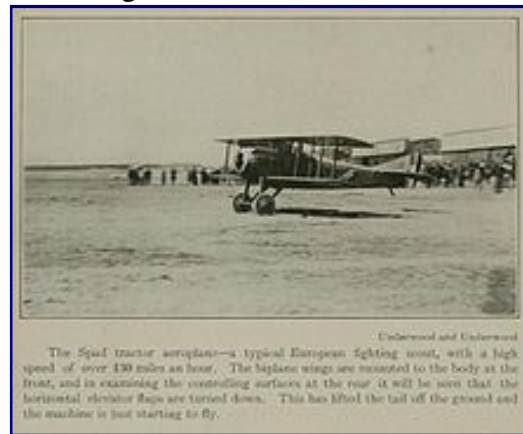
Béchereau

After Armand Deperdussin's bankruptcy in 1913 the company went into receivership and the name was changed to *Société Provisoire des Aéroplanes Deperdussin*. With Deperdussin's disgrace the cash flow stopped and the future of the SPAD company was endangered. A consortium led by [Louis Blériot](#) bought up the company's assets in 1913 and appointed Béchereau to run the business. The new entity, known as the *Société Pour L'Aviation et ses Dérivés*, was better known as SPAD.

The first Béchereau-SPAD designs were unusual two-seat [biplanes](#) which attempted to provide a

forward-firing machine gun in a [tractor configuration](#) aircraft. The pilot sat behind the airscrew, as in a tractor design, but the gunner was seated in a nacelle, or [pulpit](#), in front of the propeller, attached to the landing gear. These designs, the [SPAD A-series of models A.1, A.2 A.3, and A.4](#), were built in very small numbers, around sixty each for French and Russian air forces, and were neither popular nor successful. The subsequent development of an effective interrupter gear rendered the unusual configuration unnecessary.

Other early Béchereau designs were generally unsuccessful. The SE, a large twin-engine biplane bomber, performed well on trials, but it was not ordered due to the greater promise of Béchereau's next design.



A SPAD plane taking off

Béchereau's first real success was the [SPAD S.VII](#), which superficially resembled a smaller, neater A.2 - without the forward gunner's nacelle. Developed from the SPAD V, of which 268 were ordered but none certainly built as SPAD Vs, the SPAD S.VII was a single-seat tractor biplane fighter of simple and robust design powered by the new [Hispano-Suiza](#) water-cooled [V-8](#) engine. Compared to earlier fighters, when the SPAD VII appeared in 1916, it seemed a heavy and unmaneuverable aircraft, but pilots soon learned to take advantage of its speed and strength. Some 3,500 SPAD S.VIIs were built in France during the First World War, 120 in Britain, and 100 in Russia.

Béchereau's subsequent designs until 1918 followed the basic outline of the SPAD S.VII. The two-

seaters, the [SPAD XI](#) and SPAD XVI, were built in moderate numbers, around 1,000 of each type. Single-seat developments of the SPAD VII were more successful. The [SPAD XII](#) was a variant, first proposed by the French [flying ace Georges Guynemer](#), and was the first to use the geared output Hispano-Suiza V-8 engine, which allowed it to be armed with a 37 [mm Hotchkiss](#) cannon (*moteur-canon*) firing through the propeller hub. Tested successfully by [Guynemer](#), the general conclusion on the SPAD XII was that only very skillful pilots could exploit its powerful armament. Accordingly, although 300 were ordered, most were completed as normal SPAD fighters, with possibly one or two of the SPAD XII aircraft even serving with the US Air Service in France.

The gun chosen for the SPAD XII was a new 37 mm cannon for which 12 shots were carried, firing through the propeller shaft, necessitating the use of a geared Hispano-Suiza aviation engine to mount the new *moteur-canon*. The SPAD XII also carried a single 0.303 inch (7.7 mm) [Vickers machine gun](#) mounted on the starboard side of the nose. In order to carry the heavy cannon, the airframe was lengthened and both the wingspan and wing area increased. The wingtips were rounded rather than squared off and the wings given a slight forward stagger. To accommodate the required geared output propshaft engine, which easily allowed for the hollow propeller shaft for the cannon to fire through, and power the resultingly heavier airframe, 587 kg compared to the 500 kg of the SPAD VII, the 180 bhp [Hispano-Suiza 8](#) direct-drive Ab engine was replaced by the geared 220 bhp model 8Cb, and gave the SPAD XII a [clockwise](#) rotating propeller, as seen from a "nose-on" view.

Deliveries of the SPAD XII were slow and even the modest total of 300 aircraft which were ordered were not all completed. Best estimates are only 20 were produced. Average pilots found the SPAD XII to be a difficult aircraft to master, and the cannon difficult to aim and fire, while manual reloading was difficult. The cockpit filled with fumes upon every firing. Its breech mechanism protruded into the cockpit and prevented the use of a conventional stick to control the aircraft, adding to the difficulties

encountered by ordinary pilots. The control setup reverted to a split setup on either side of the pilot.

The [SPAD S.XIII](#) was developed from the SPAD S.VII using lessons learned from the SPAD XII. The S.XIII differed from its S.VII predecessor by incorporating a number of aerodynamic and other refinements, including larger wings and rudder, a more powerful [Hispano-Suiza 8B](#) engine fitted with reduction gearing, driving a larger "right-hand" clockwise-rotation propeller, and a second [0.303 Vickers machine gun](#) for added firepower. The sum of these improvements was a notable improvement in flight and combat performance. It was faster than its main contemporaries, the British [Sopwith Camel](#) and the German [Fokker D.VII](#), and was renowned for its ruggedness and strength in a dive. The maneuverability of the type was however relatively poor, especially at low speeds. A steep gliding angle and a very sharp [stall](#) made it a difficult aircraft for novice pilots to land safely. The SPAD S.XIII first flew on 4 April 1917, and in the following month, was already being delivered to the [French Air Service](#). Other Allied forces were quick to adopt the new fighter as well. Single-seat SPAD XIII's were flown by many ace pilots, including famous French fighter pilots such as [Georges Guynemer](#) and [Rene Fonck](#), and also by Italian ace [Francesco Baracca](#). Aces of the [United States Army Air Service](#) who flew the SPAD XIII include [Eddie Rickenbacker](#) (America's leading ace with 26 confirmed victories) and [Frank Luke](#) (18 victories). Georges Guynemer was, as has already been noted, highly successful with the SPAD S.XII, as well as the SPAD S.VII and SPAD S.XIII. At the end of the First World War, all 1,152 single-seat fighters on the strength of French front line air units were SPAD XIII's. It is reported that nearly 900 SPAD XIII fighters were eventually to end up in American service.

Although SPAD had been successful, and had reaped very large profits, the very high profits in aircraft manufacturing had led to increased competition during the war. In 1916, for example, over 98% of the SPAD fighters built had come from factories owned by SPAD and Blériot. By 1918, with large industrial syndicates competing for contracts, this had fallen to 43%. SPAD designs accounted for around 20% of French aircraft

produced during World War One. Louis Blériot's 1913 investment was a very profitable one.

Blériot-SPAD

Post-war the company became Blériot-SPAD. The first of its designs to be known by this name was Bécherau's elegant [monocoque](#) SPAD 20 biplane. First flown in 1918, the SPAD 20 was not delivered until 1920. The return of peace meant orders were small; only 93 were built.

The return of peace also meant that the company had to face the problem of dealing with its liabilities under the [excess profits tax](#) of 1 July 1916. As modified in 1917, this imposed an 80% tax rate on almost all "excess profits". The calculation and collection of the tax was a controversial issue, and very large amounts were still outstanding as late as 1940, when the German occupation rendered the whole question irrelevant. With the future uncertain, SPAD was fully incorporated into the Blériot organization in 1921, and the company effectively disappeared, although a number of Blériot types were marked as SPADs.

Aircraft

- ▲ [Deperdussin Monocoque](#)
- ▲ [Deperdussin TT](#)
- ▲ [SPAD A.2](#)
- ▲ [SPAD S.VII](#)
- ▲ [SPAD S.XI](#)
- ▲ [SPAD S.XII](#)
- ▲ [SPAD S.XIII](#)
- ▲ [SPAD S.XIV](#)
- ▲ [SPAD S.XX](#)
- ▲ [Blériot-SPAD S.33](#)
- ▲ [Blériot-SPAD S.34](#)
- ▲ [Blériot-SPAD S.46](#)
- ▲ [Blériot-SPAD S.51](#)
- ▲ [Blériot-SPAD S.61](#)
- ▲ [Blériot-SPAD S.66](#)
- ▲ [Blériot-SPAD S.81](#)
- ▲ [Blériot-SPAD S.510](#)

Specifications (SPAD S.XIII)

Data from [Fighter: The World's Finest Combat Aircraft - 1913 to the Present Day](#)

General characteristics

- ▲ **Crew:** 1
- ▲ **Length:** 6.25 m (20 ft 6 in)
- ▲ **Wingspan:** 8.25 m (27 ft 1 in)
- ▲ **Height:** 2.60 m (8 ft 6.5 in)
- ▲ **Wing area:** 21.1 m² (227 ft²)
- ▲ **Empty weight:** 566 kg (1,245 lb)
- ▲ **Loaded weight:** 856 kg (1,888 lb)
- ▲ **Max takeoff weight:** 845 kg (1,863 lb)
- ▲ **Powerplant:** 1 × [Hispano-Suiza 8Be](#) 8 cylinder vee-type, 220 hp (164 kw)

Performance

- ▲ **Maximum speed:** 218 km/h (117 knots, 135 mph) at 2,000 m (6,560 ft)
- ▲ **Service ceiling:** 6,650 m (21,815 ft)
- ▲ **Rate of climb:** 2 m/s (384 ft/min)
- ▲ **Wing loading:** 40.56 kg/m² ()

Armament

- ▲ **Guns:** 2 x .303-cal. (7.7 mm) [Vickers machine guns](#)

SPAD A.2



Rocket City Radio Controllers
P. O. Box 2163
Huntsville, AL 35804

To: _____

AMA chartered
club since 1964
Number 715

August, 2011

2011 RCRC Event Schedule					
RCRC membership meeting August 16th at 7:00 PM					
Board meeting – September 6th at 6:00 PM					
†	November 5 th & 6 th	All day	Toys for tots	Bob walls	256.830.2352
†	November 19 th	All day	Pylon race, Chili cookoff	Alan Berard	256.776.9509
Events held at Wilbourn Field unless noted otherwise					
† Field closed to non-participants during this event					
‡ Field closed to non-participants from noon onward on the Friday before the event					