

KIC 011917366

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
011917366-01	OBS	No	0.849772	131.841664	36.7	4.936	7.7	8.5	0.73	5227	0.44	1429.52
011917366-02	OBS	No	66.665230	186.556005	452.8	3.847	9.0	7.7	0.73	5227	1.76	4.26

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011917366-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_MEAS
011917366-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

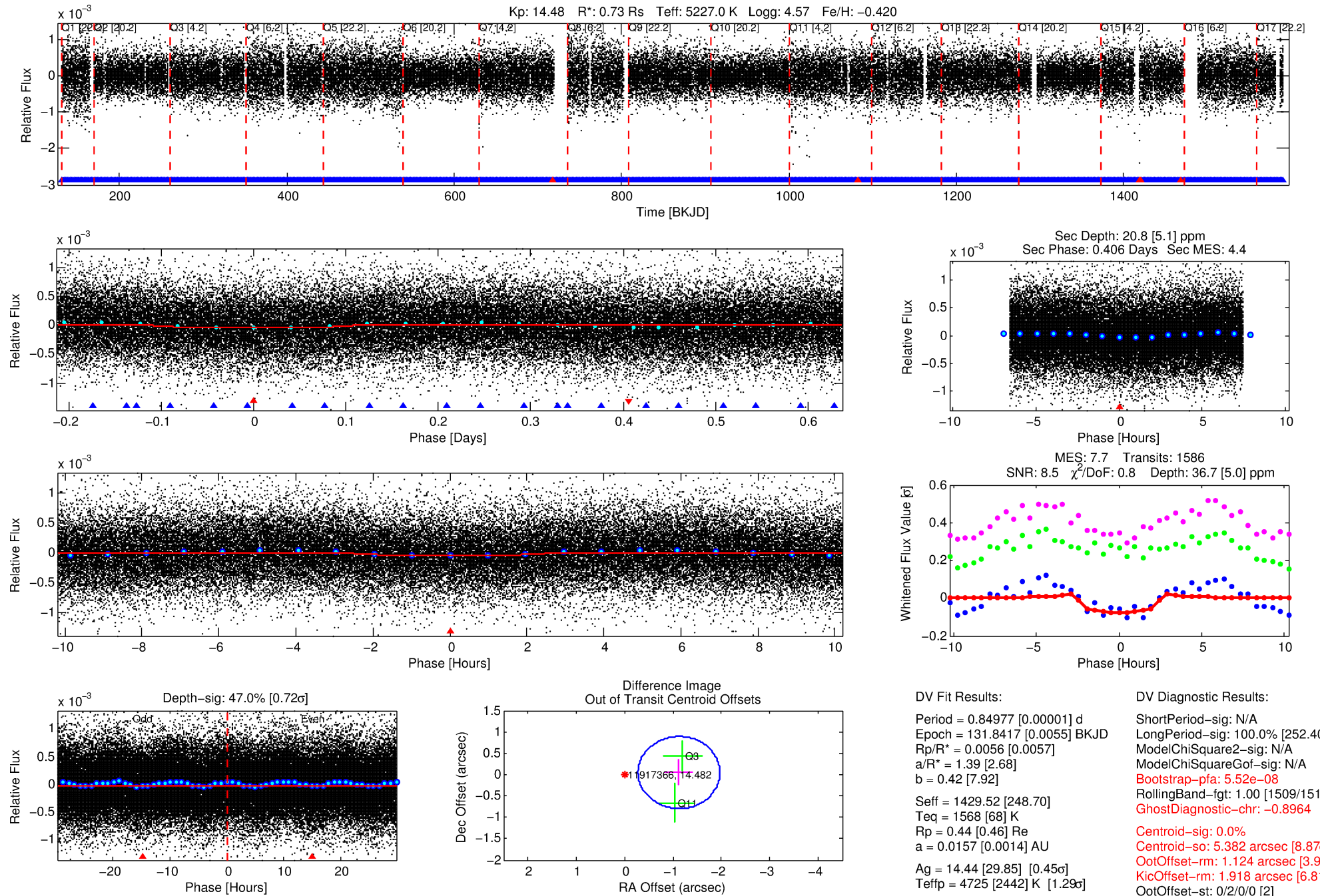
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011917366-01

No Significant Match Found

DV One-Page Summary

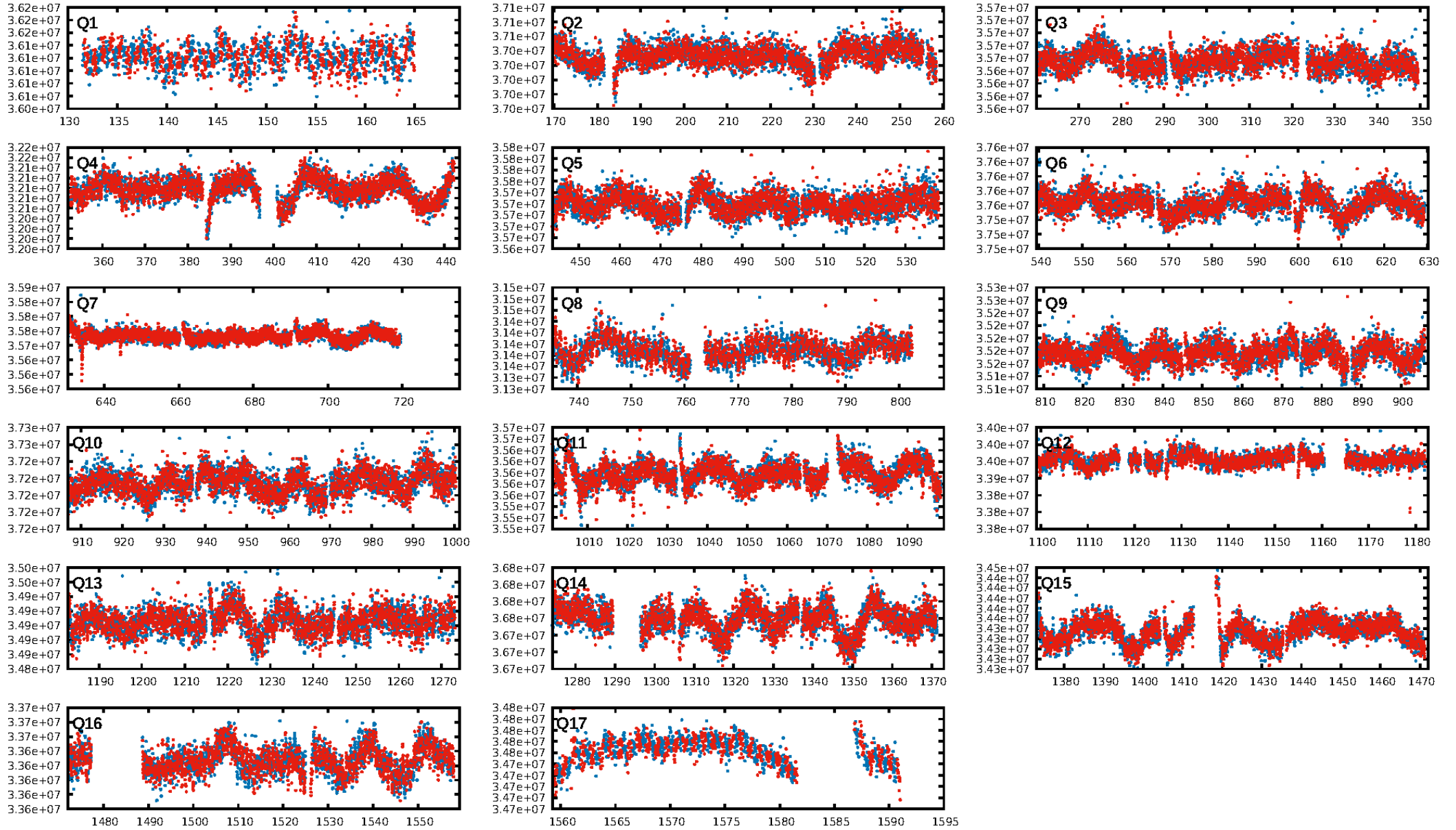
KIC: 11917366 Candidate: 1 of 2 Period: 0.850 d



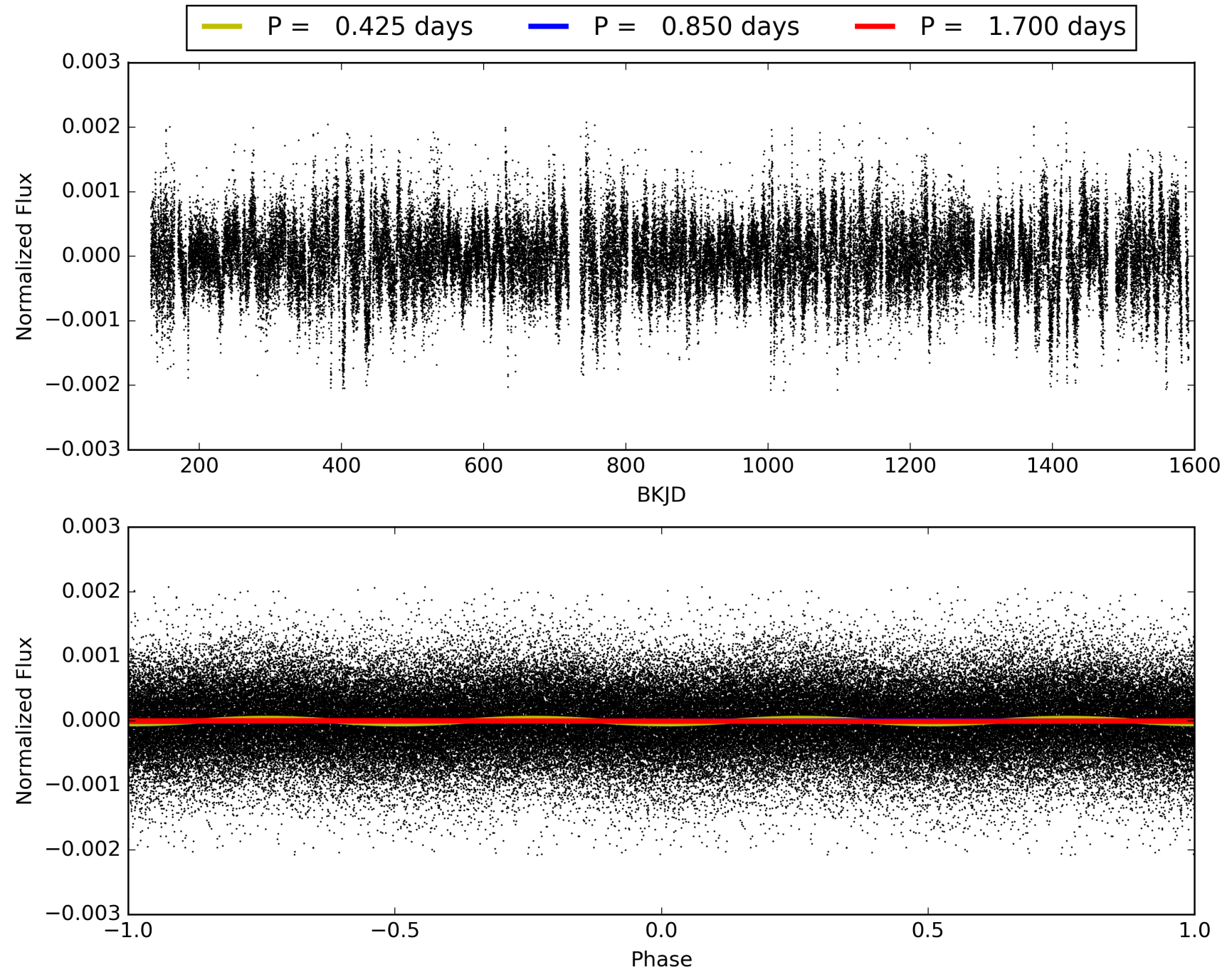
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 05:34:21 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011917366-01, PDC Light Curves

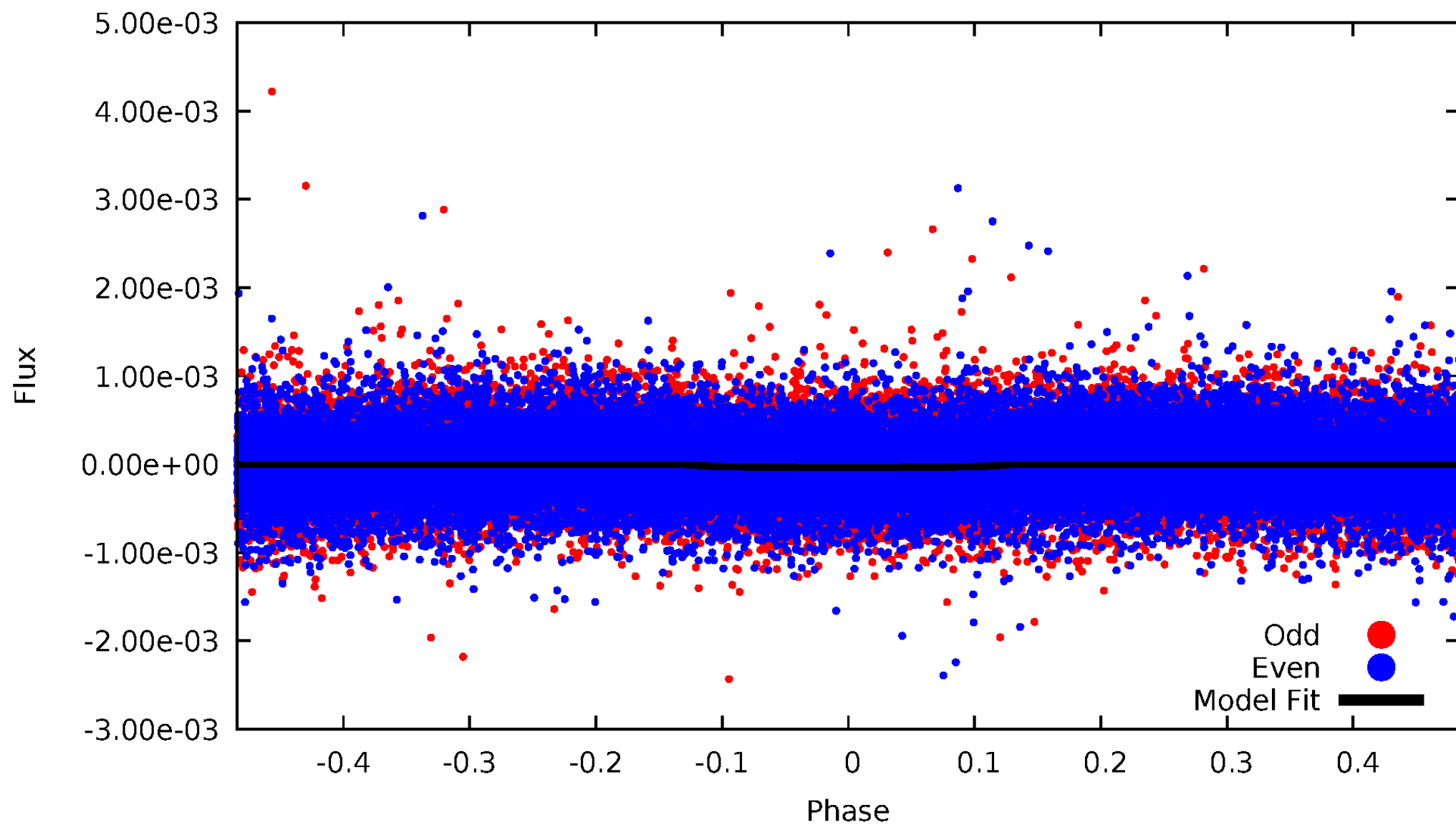


TCE 011917366-01



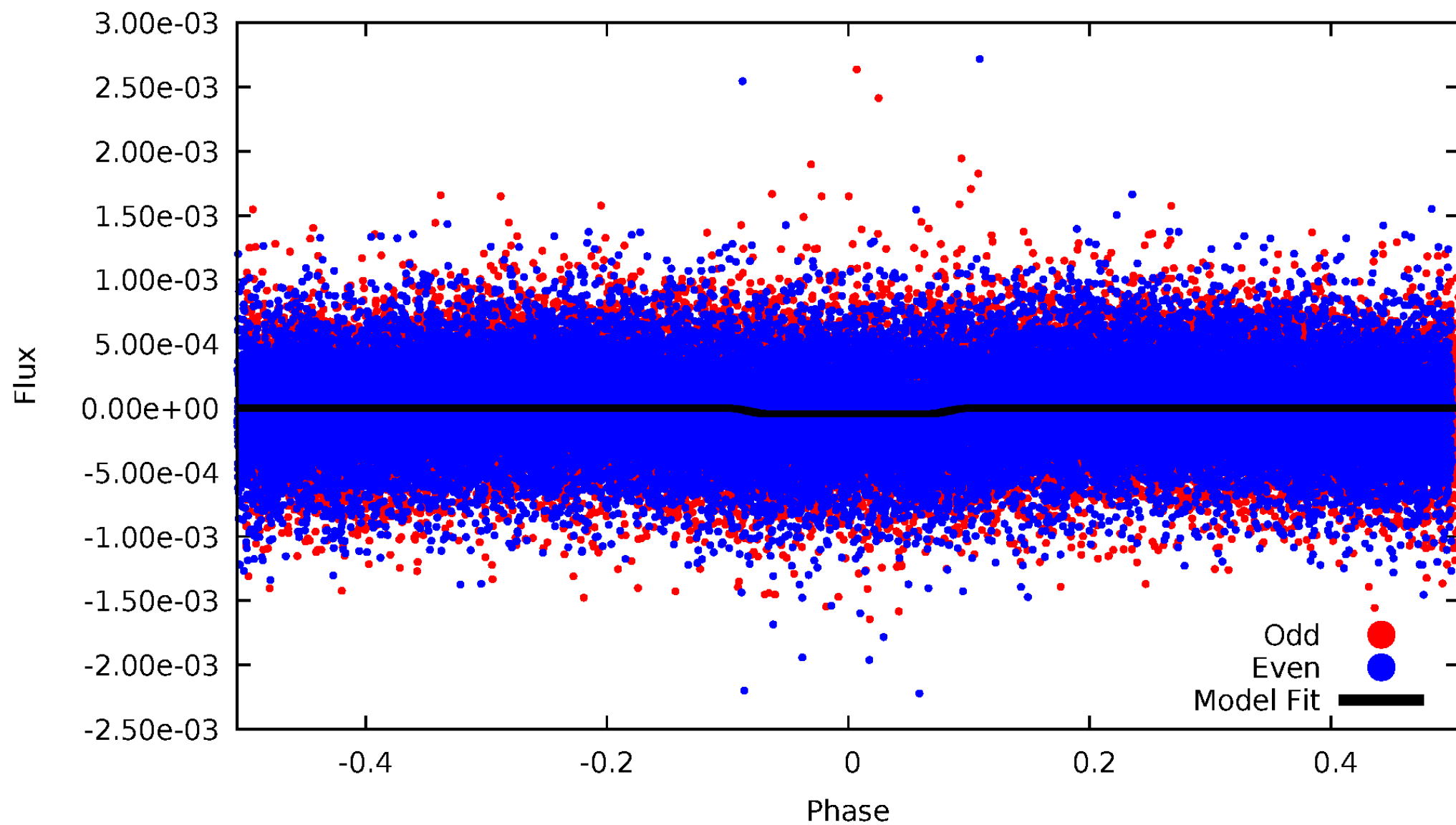
DV Odd/Even

TCE 011917366-01



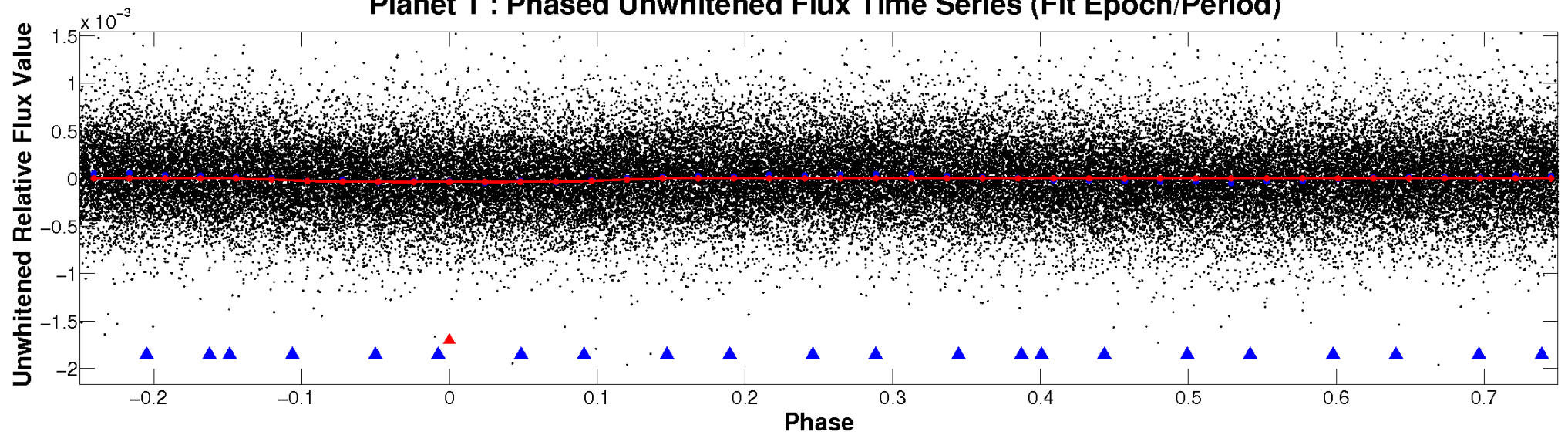
ALT Odd/Even

TCE 011917366-01

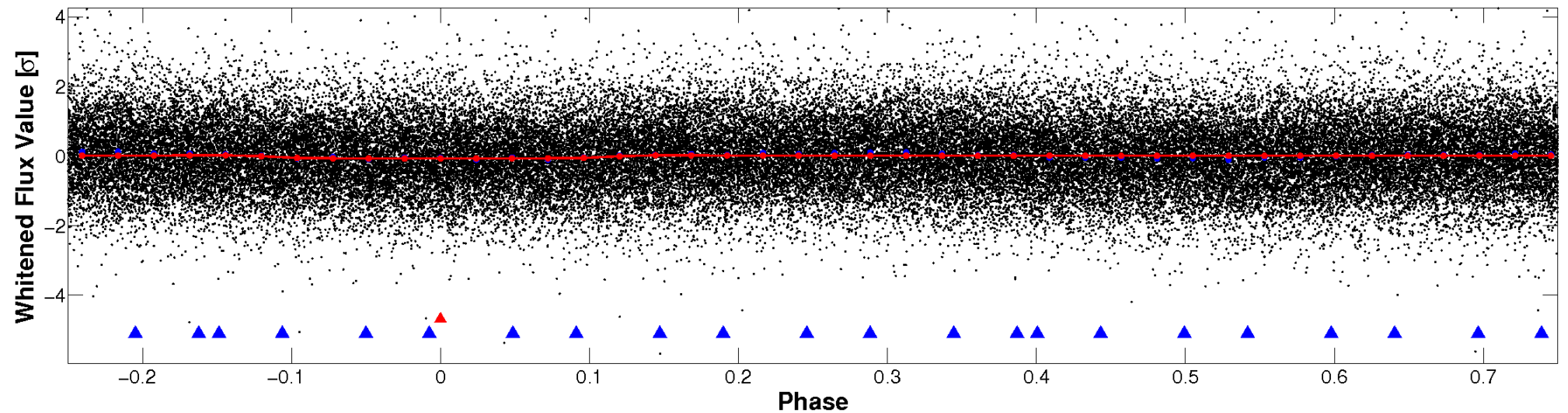


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

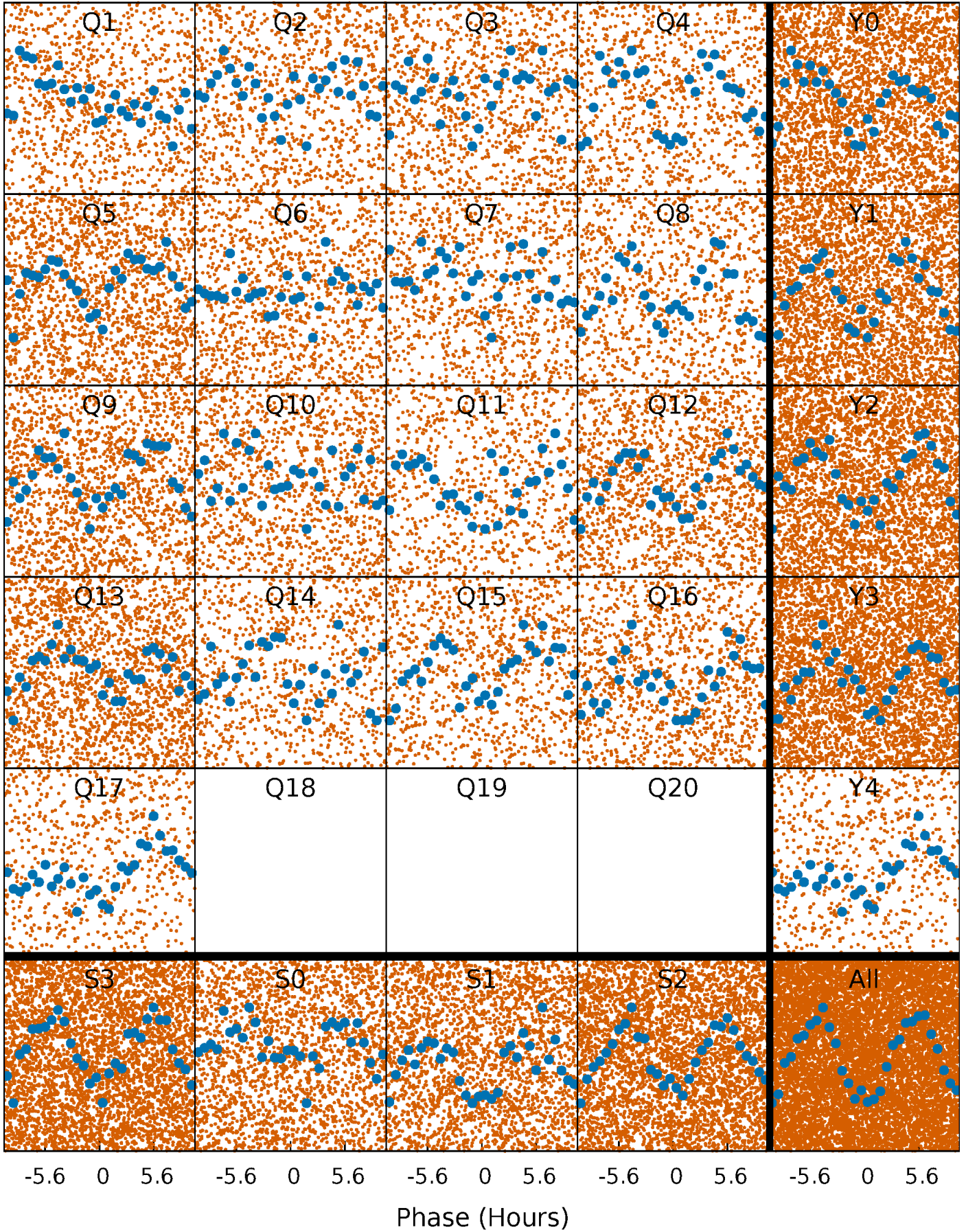


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



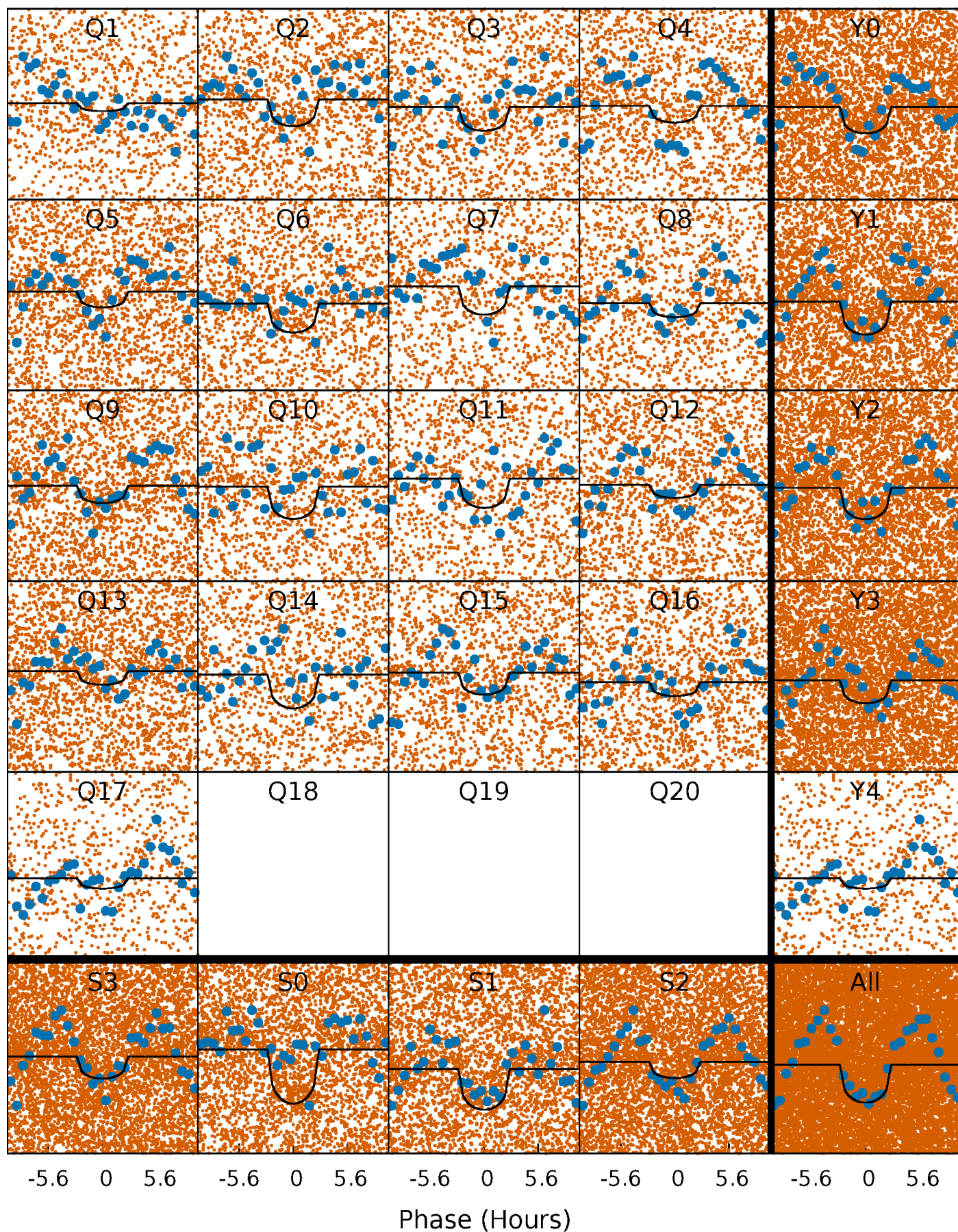
PDC Quarter-Phased Transit Curves

TCE 011917366-01 P= 0.849772 Days $T_0=131.841664$ (BKJD)



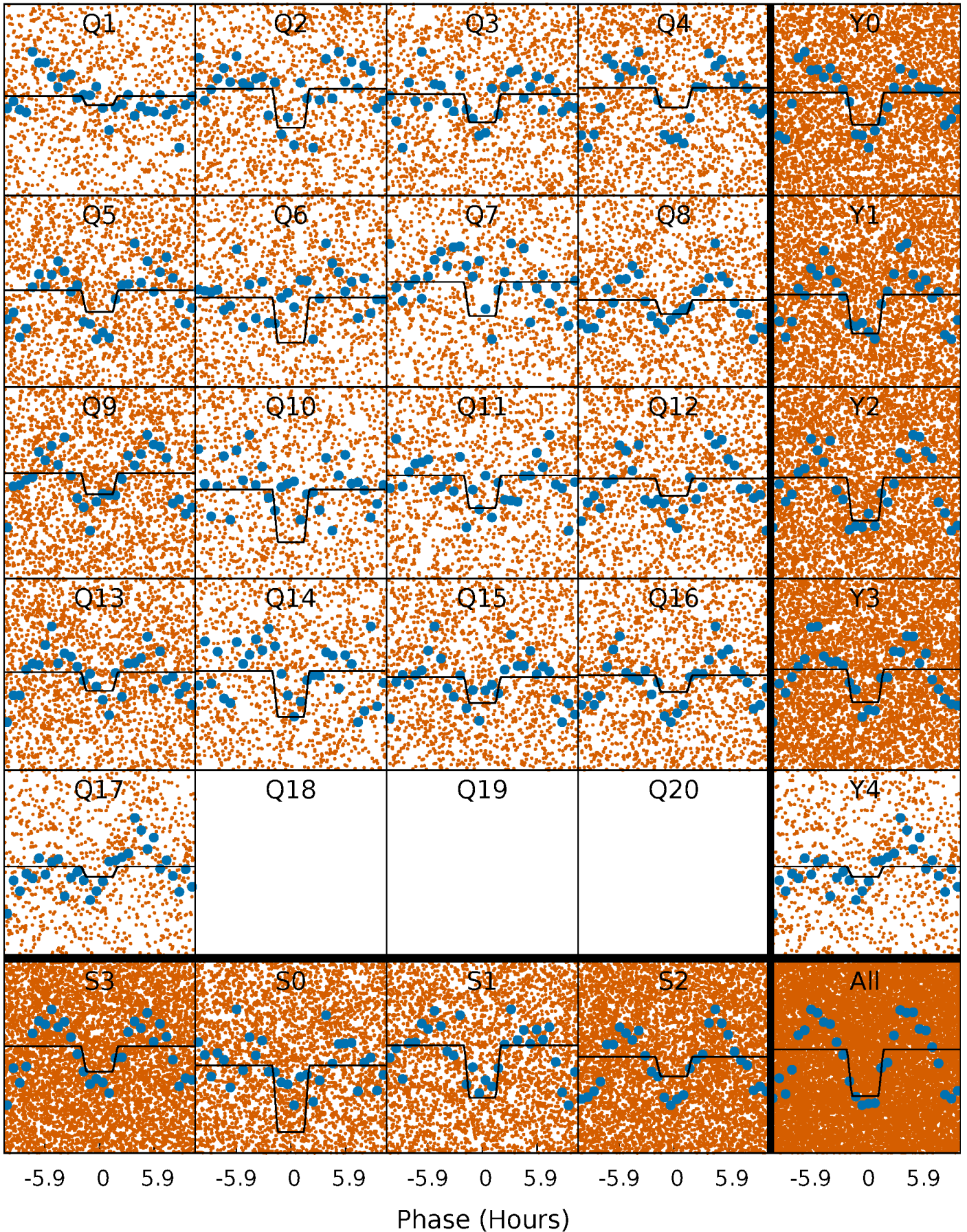
DV Quarter-Phased Transit Curves

TCE 011917366-01 P= 0.849772 Days $T_0=131.841664$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

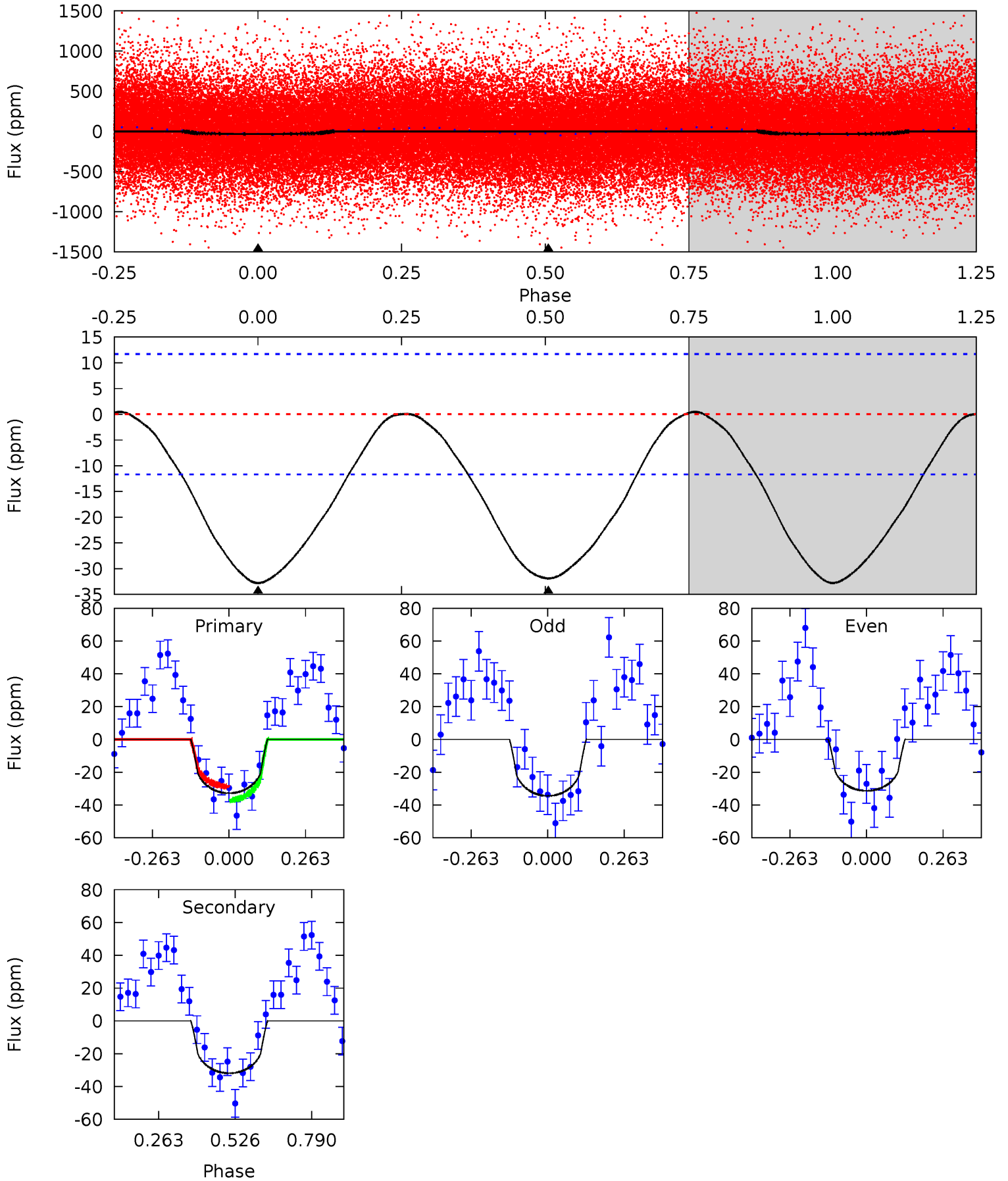
TCE 011917366-01 P= 0.849836 Days $T_0=131.797398$ (BKJD)



DV Model-Shift Uniqueness Test

011917366-01, P = 0.849772 Days, E = 130.991892 Days

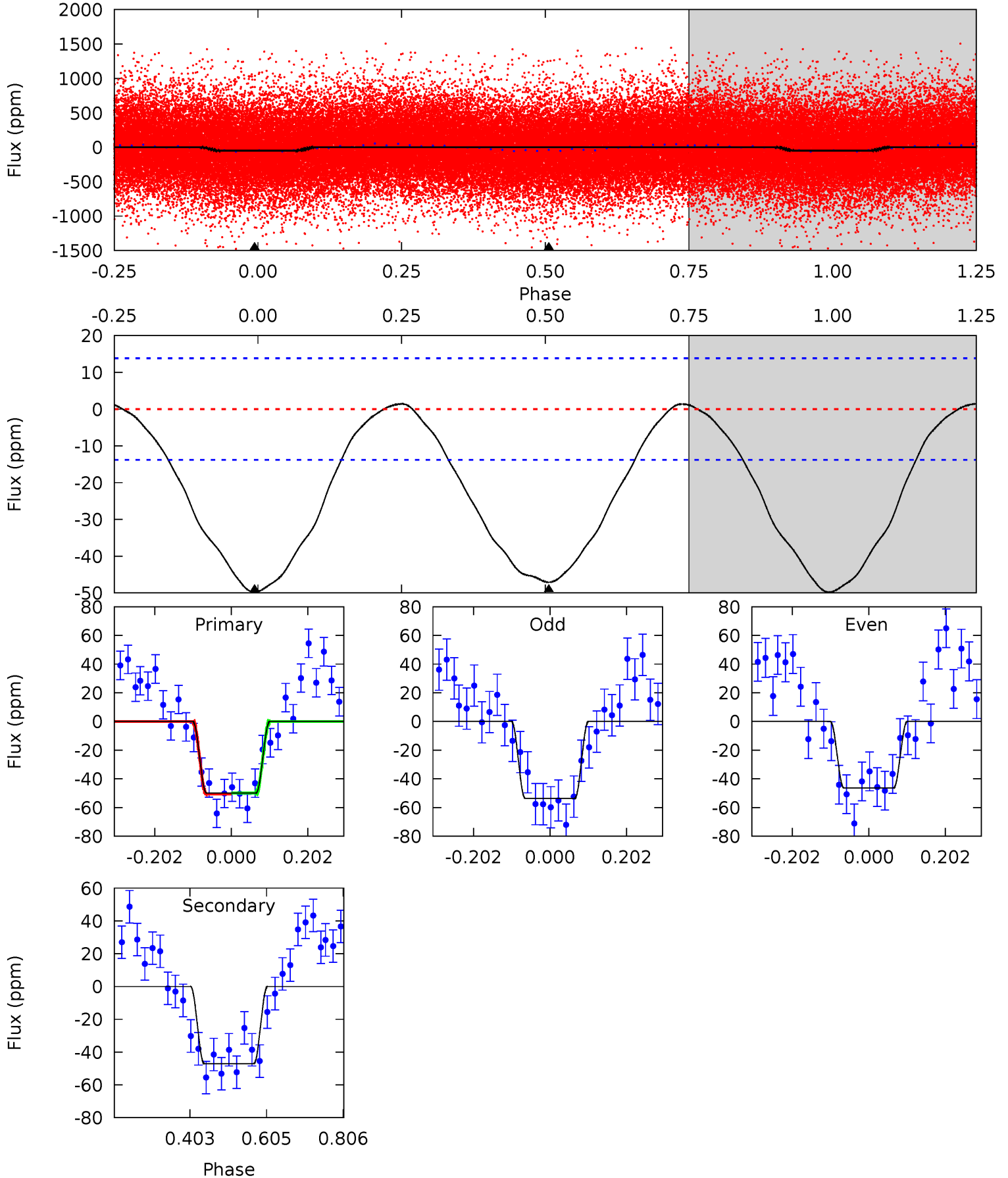
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.2	11.9	0	0	4.36	1.12	0.12	12.2	12.2	11.9	11.9	0.58	1.27	0.01	1.52



Alt Model-Shift Uniqueness Test

011917366-01, P = 0.849836 Days, E = 130.947562 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.9	15.1	0	0	4.42	1.28	0.60	15.9	15.9	15.1	15.1	1.14	1.25	0.03	0.12



Stellar Parameters For KIC 011917366

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5227^{+155}_{-140}	$4.571^{+0.066}_{-0.060}$	$-0.420^{+0.350}_{-0.300}$	$0.727^{+0.084}_{-0.068}$	$0.719^{+0.091}_{-0.052}$	$2.634^{+0.726}_{-0.570}$
	+3%/-3%	+1%/-1%	+83%/-71%	+12%/-9%	+13%/-7%	+28%/-22%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011917366-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-32 ± 3	$0.54^{+0.41}_{-0.33}$	2189^{+90}_{-83}	4809^{+2901}_{-984}	15^{+86}_{-10}
Alt.	-47 ± 3	$0.62^{+0.40}_{-0.38}$	2186^{+83}_{-79}	4936^{+2958}_{-924}	17^{+93}_{-11}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

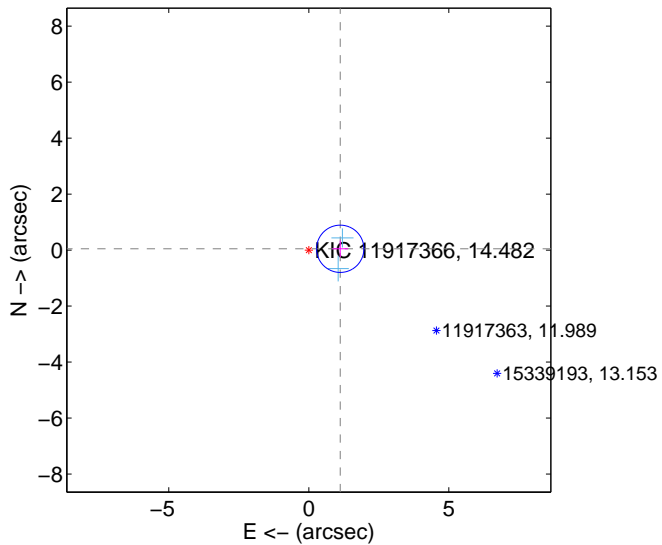
Supplemental centroid analysis for 011917366-01. Kepler magnitude: 14.48. Transit SNR 8.47

There are 2 quarters with good PRF difference image offsets

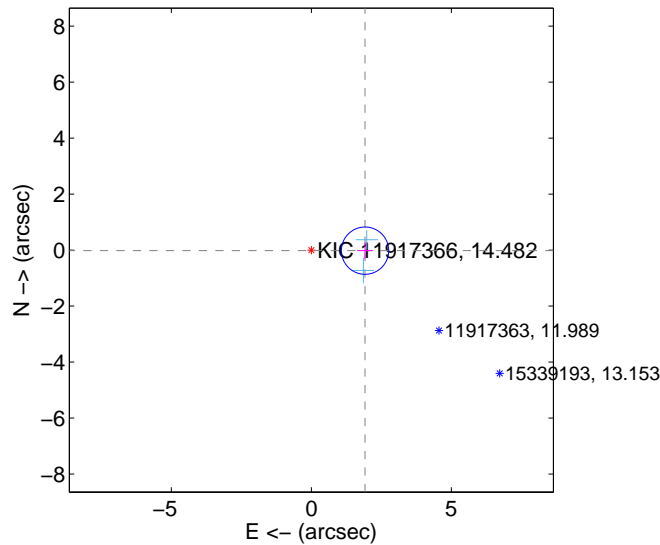
The direct PRF centroid is offset from the target star catalog position by about 0.81 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.124 ± 0.282	3.99	-1.123 ± 0.281	0.047 ± 0.294
PRF-fit source offset from KIC position	1.918 ± 0.281	6.81	-1.918 ± 0.281	-0.020 ± 0.294
photometric centroid source offset	5.38 ± 0.61	8.87	-5.06 ± 0.60	-1.83 ± 0.62

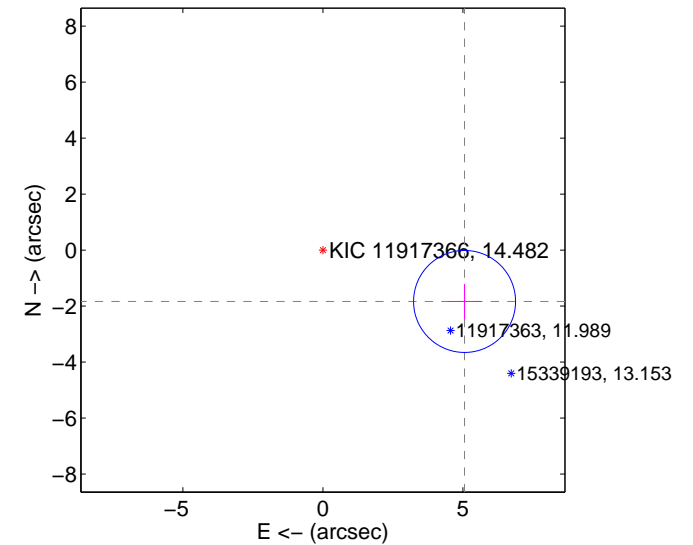
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

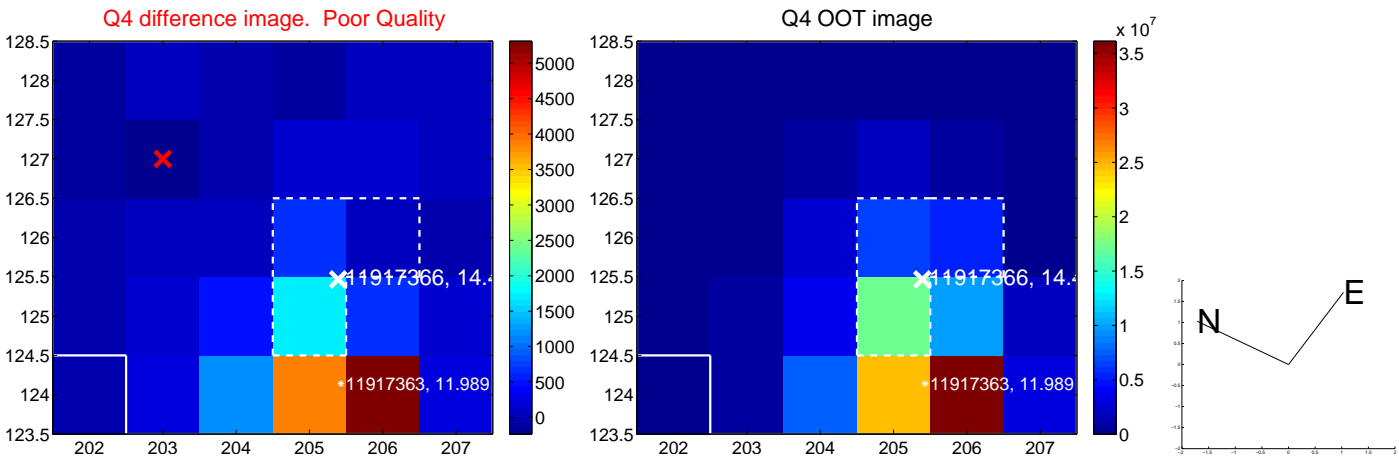
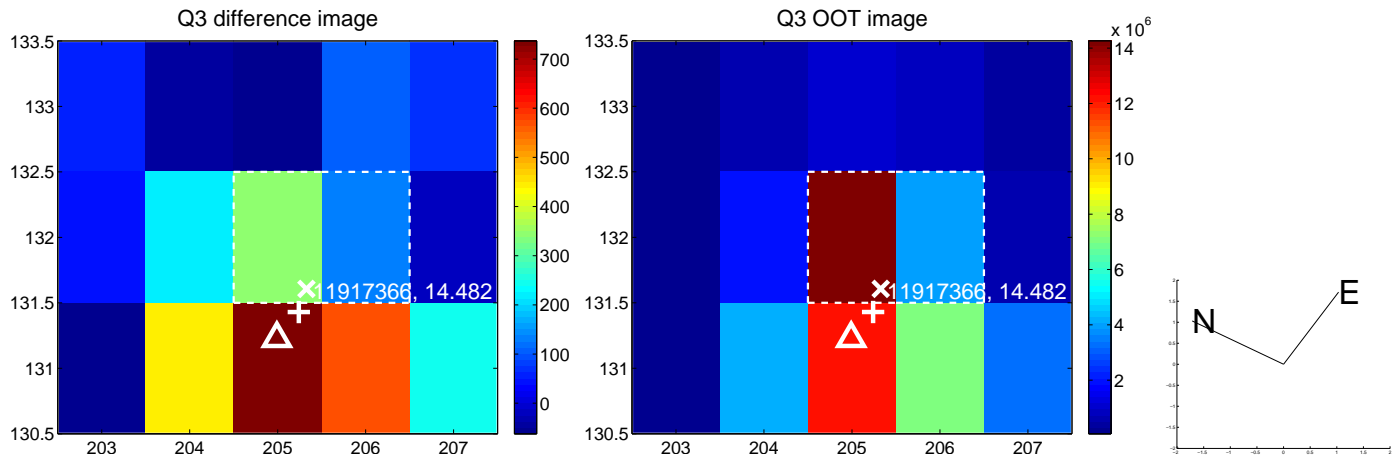
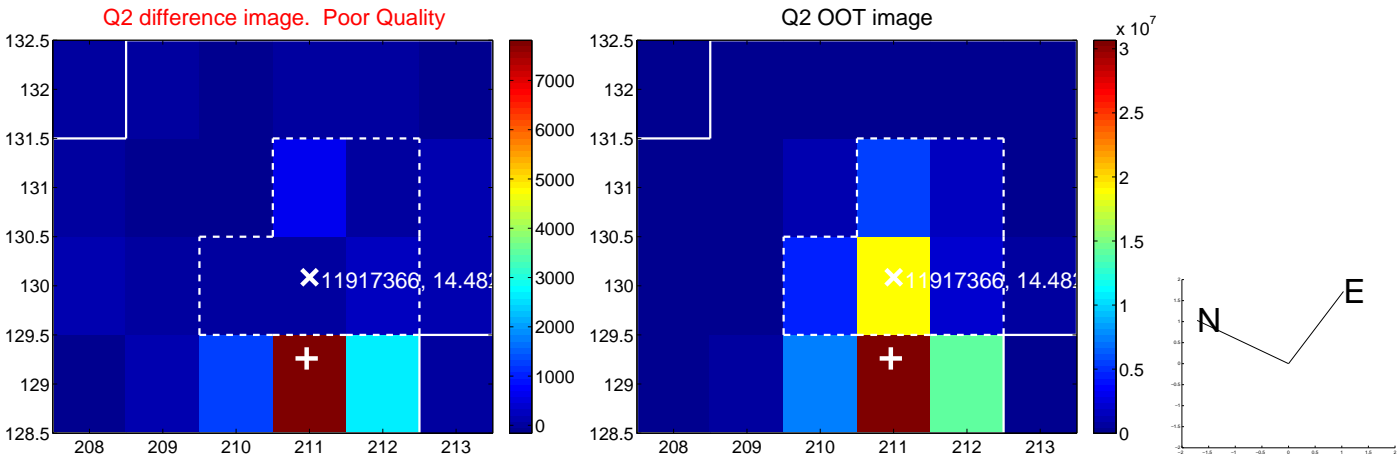
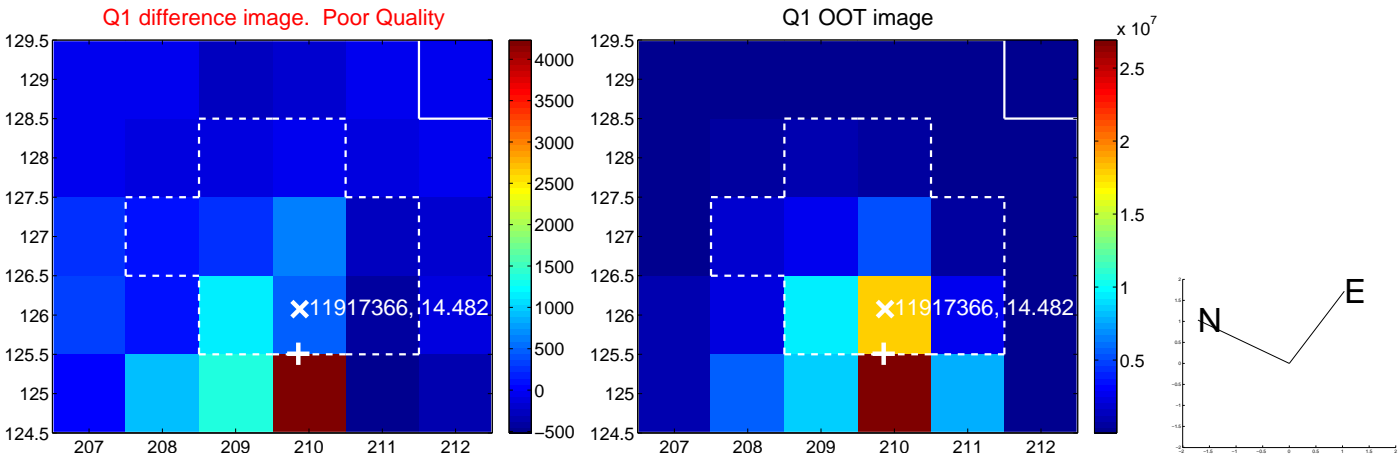


offset from photometric centroids

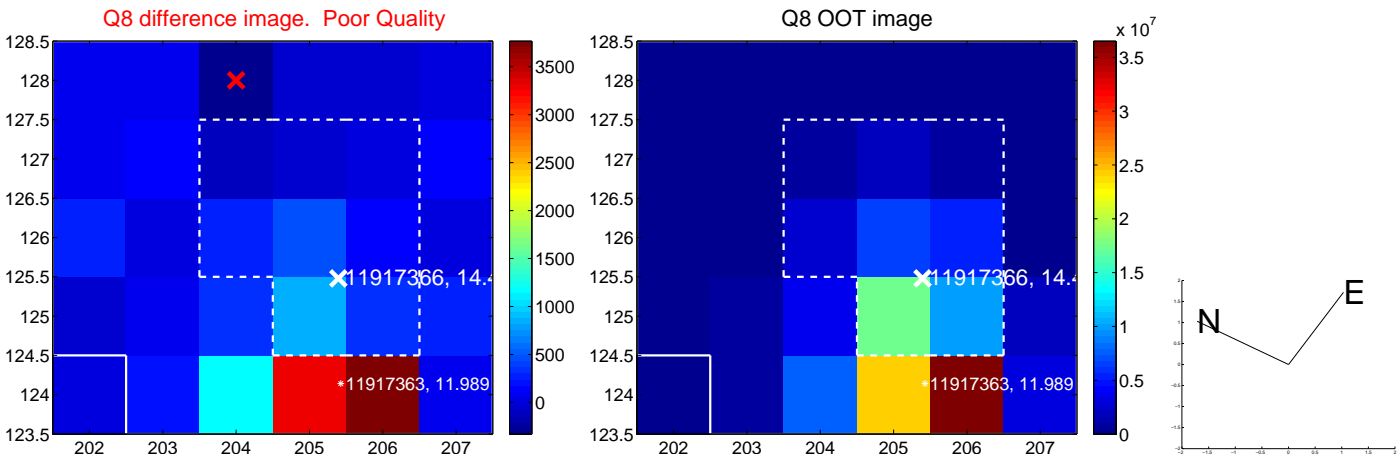
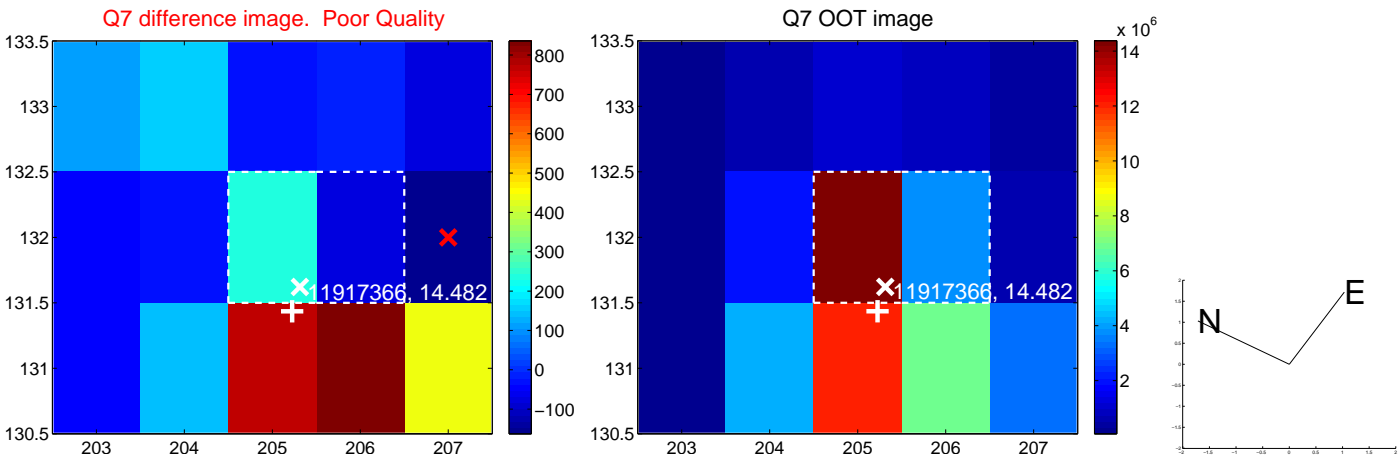
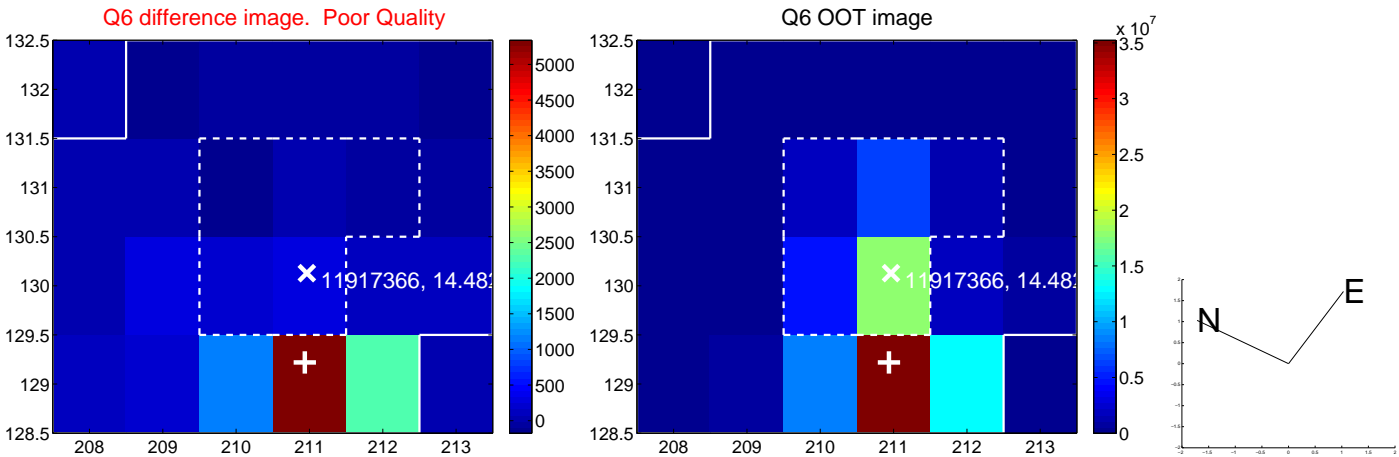
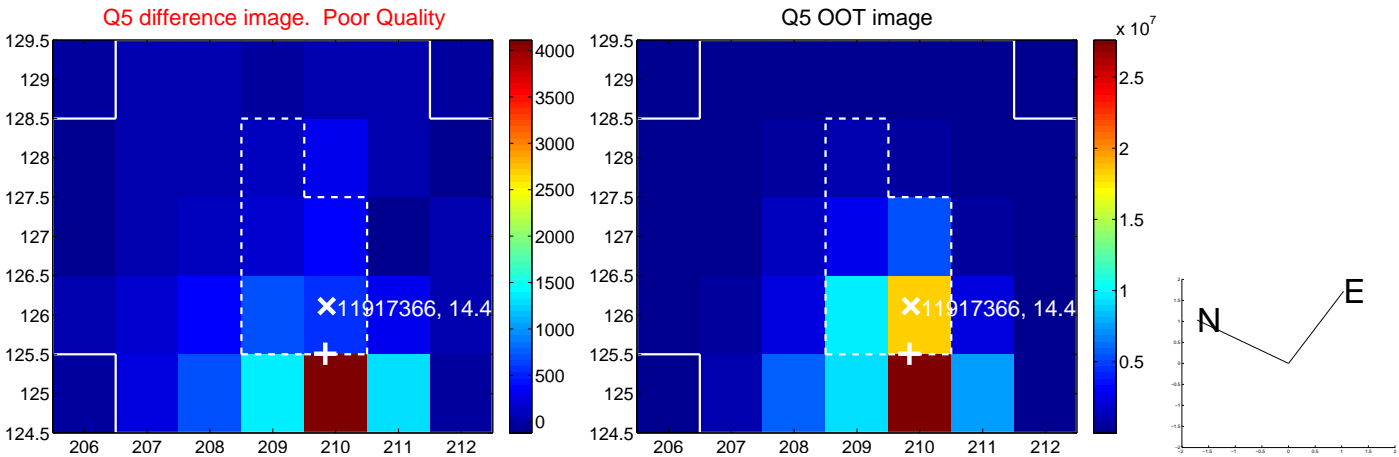


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

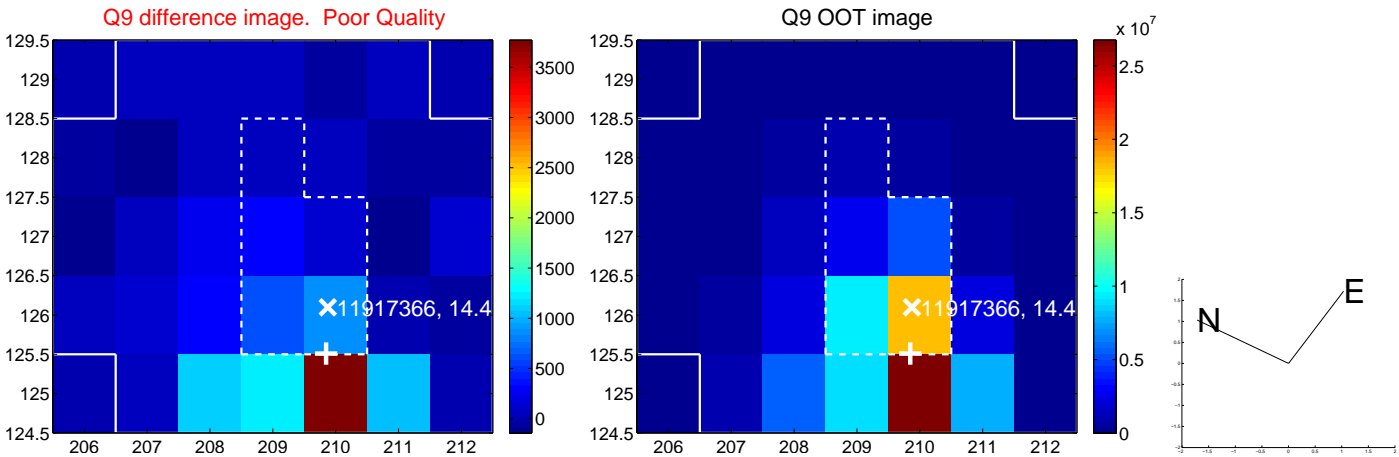
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



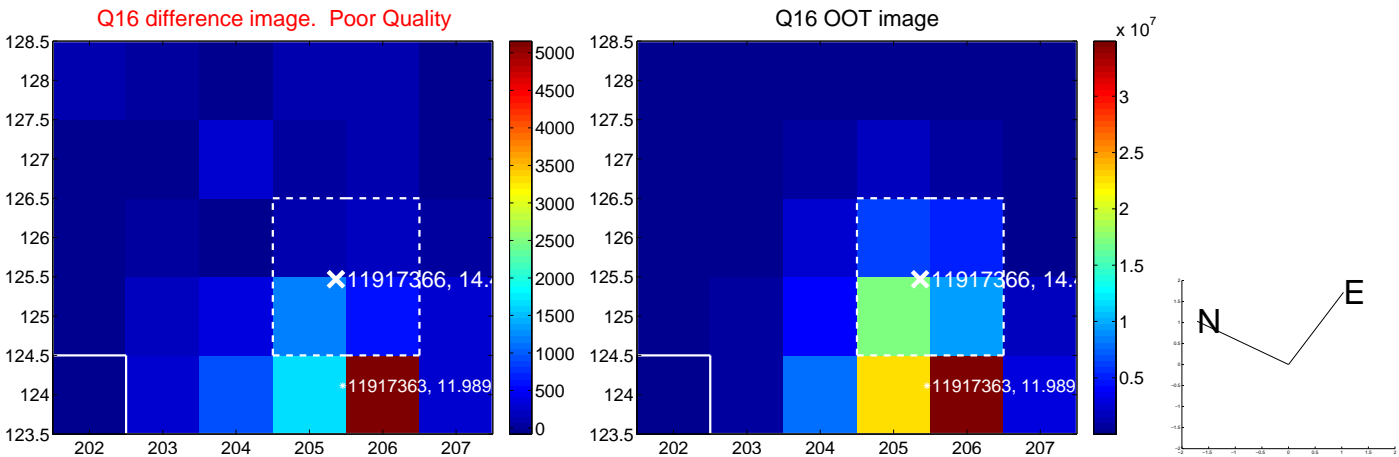
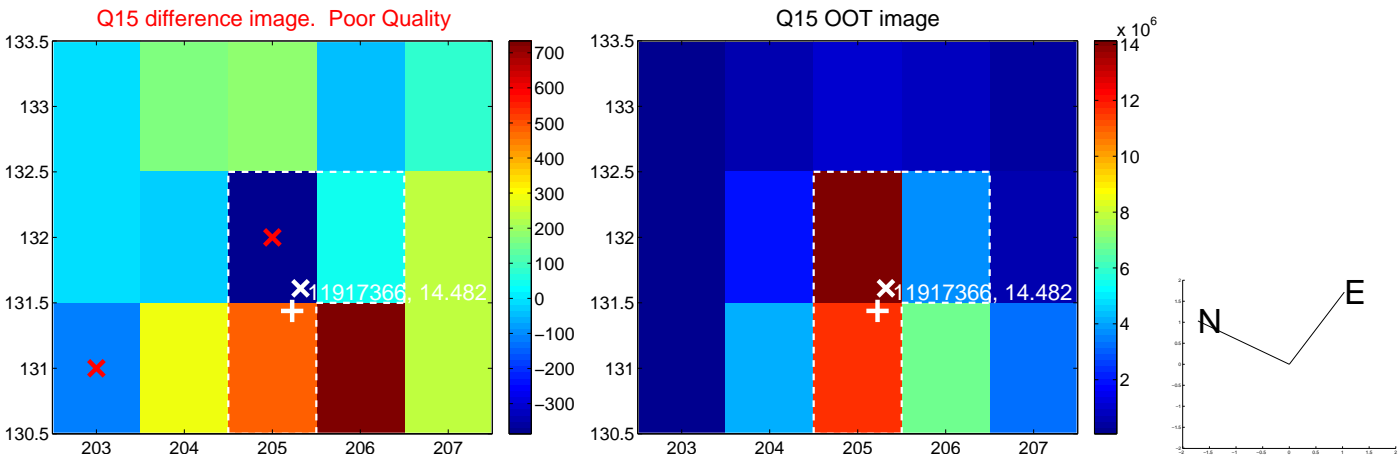
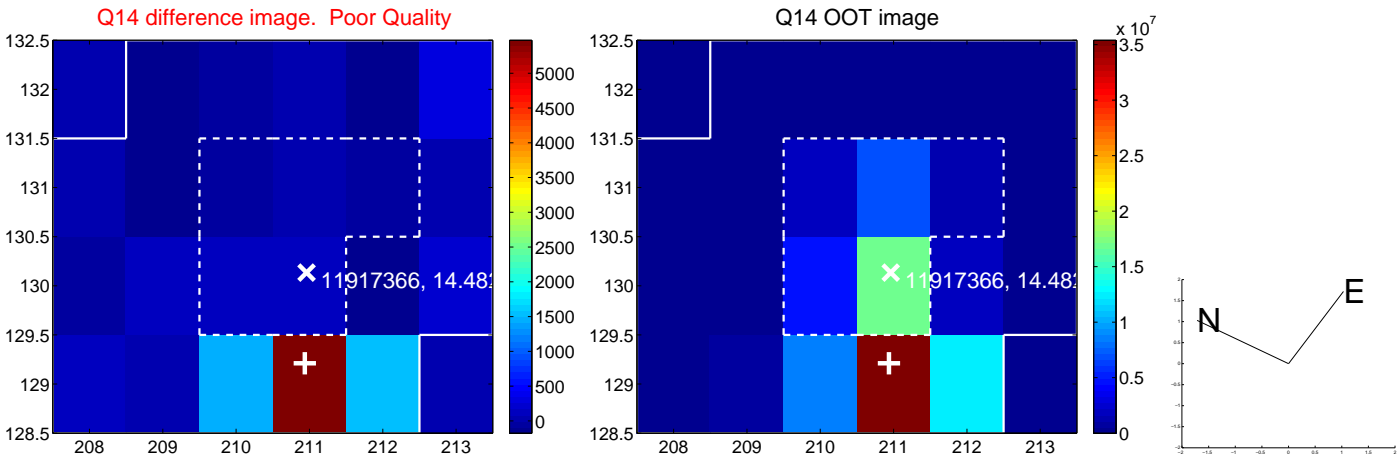
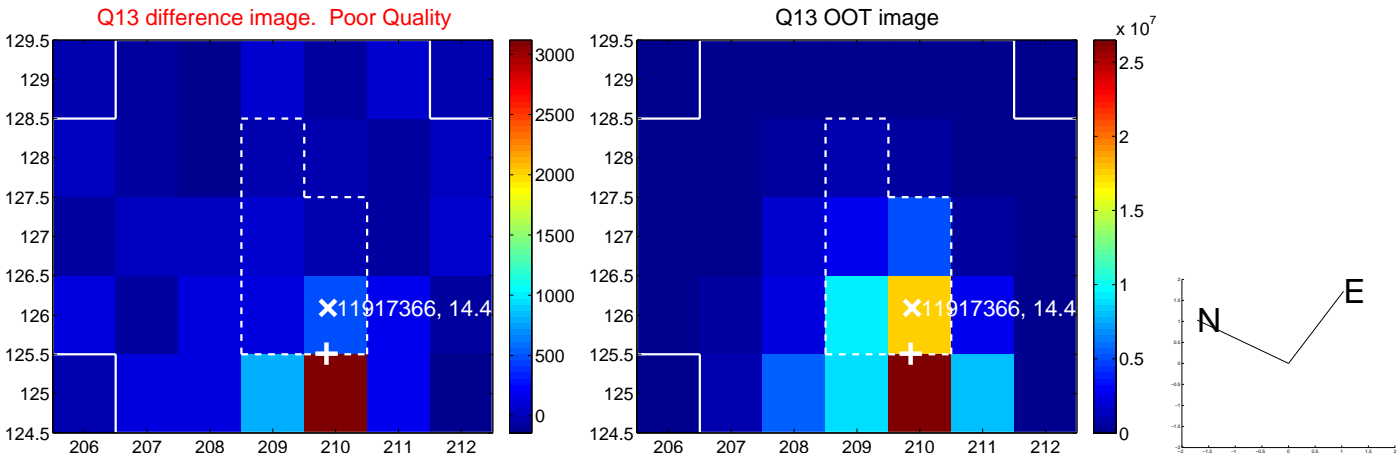
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



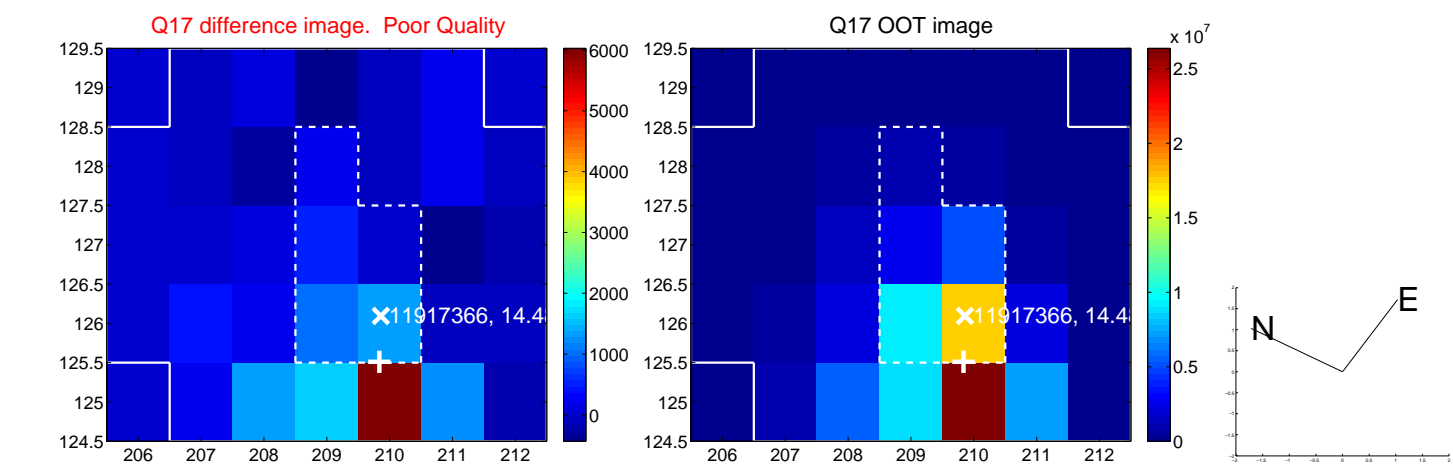
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



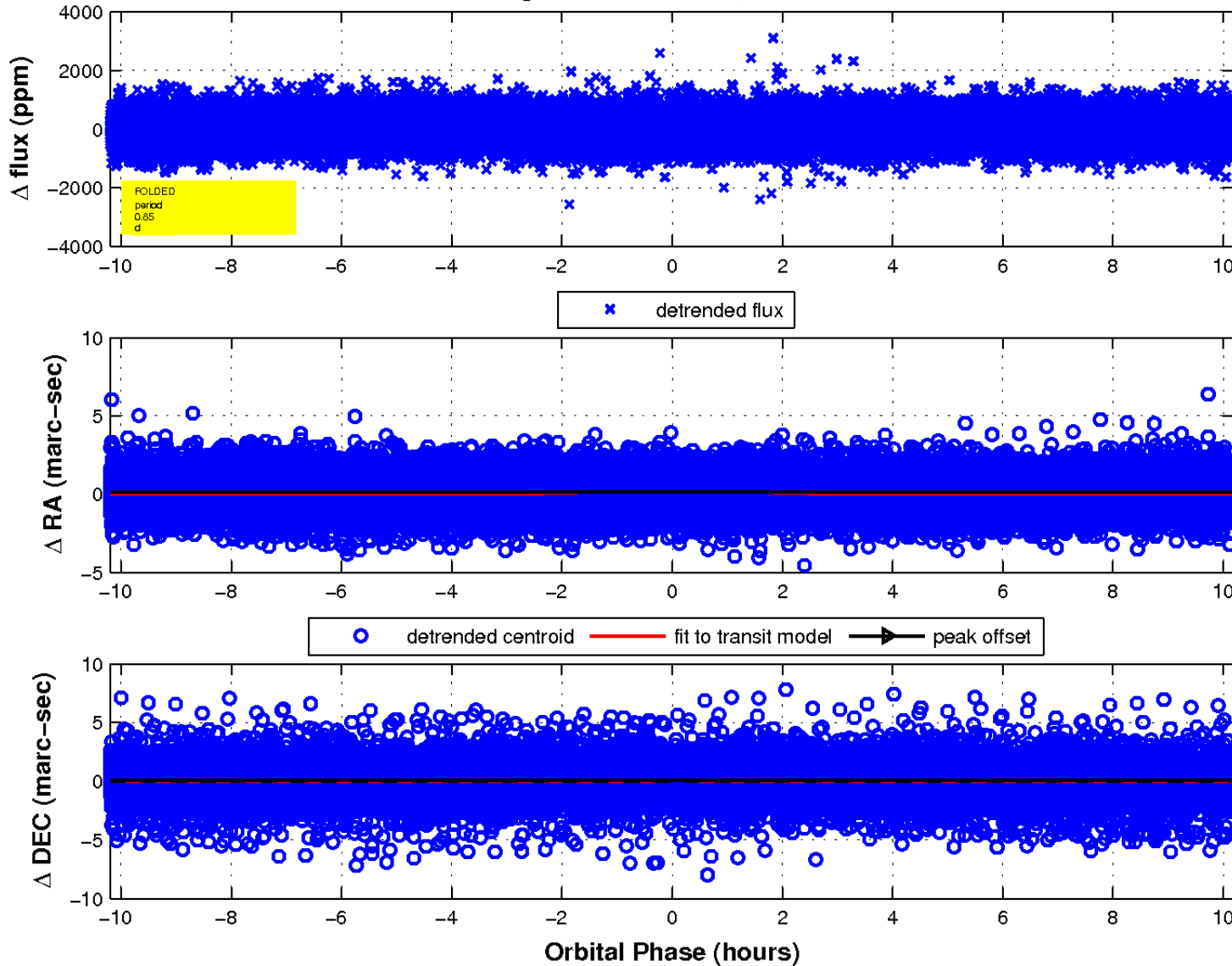
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

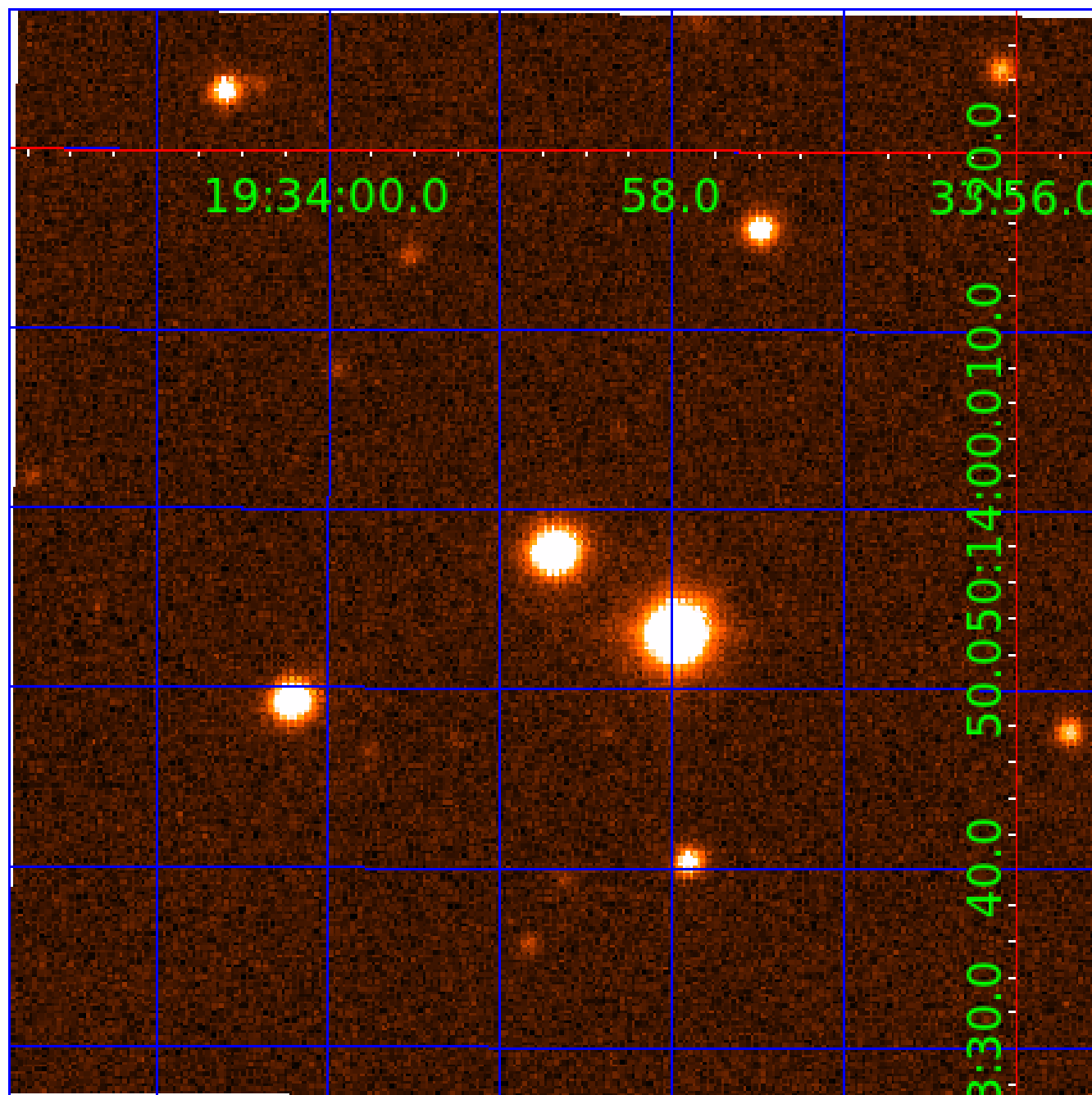


fluxWeightedCentroids, Planet 1 of 2



UKIRT Image

Declination



KIC 011917366

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
011917366-01	OBS	No	0.849772	131.841664	36.7	4.936	7.7	8.5	0.73	5227	0.44	1429.52
011917366-02	OBS	No	66.665230	186.556005	452.8	3.847	9.0	7.7	0.73	5227	1.76	4.26

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011917366-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_MEAS
011917366-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

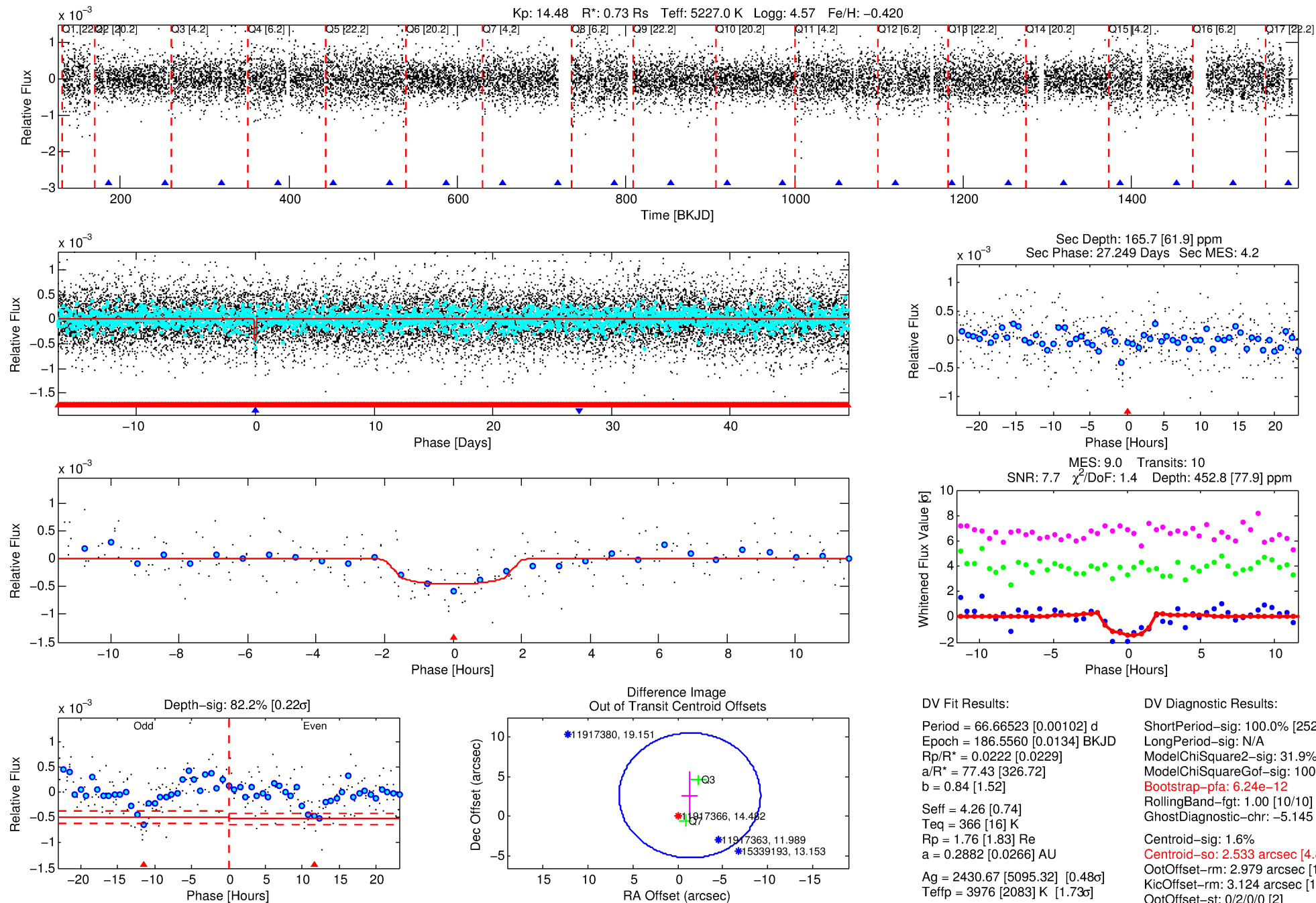
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011917366-02

No Significant Match Found

DV One-Page Summary

KIC: 11917366 Candidate: 2 of 2 Period: 66.665 d



DV Fit Results:

Period = 66.66523 [0.00102] d
Epoch = 186.5560 [0.0134] BKJD
Rp/R* = 0.0222 [0.0229]
a/R* = 77.43 [326.72]
b = 0.84 [1.52]
Seff = 4.26 [0.74]
Teq = 366 [16] K
Rp = 1.76 [1.83] Re
a = 0.2882 [0.0266] AU
Ag = 2430.67 [5095.32] [0.48 σ]
Teffp = 3976 [2083] K [1.73 σ]

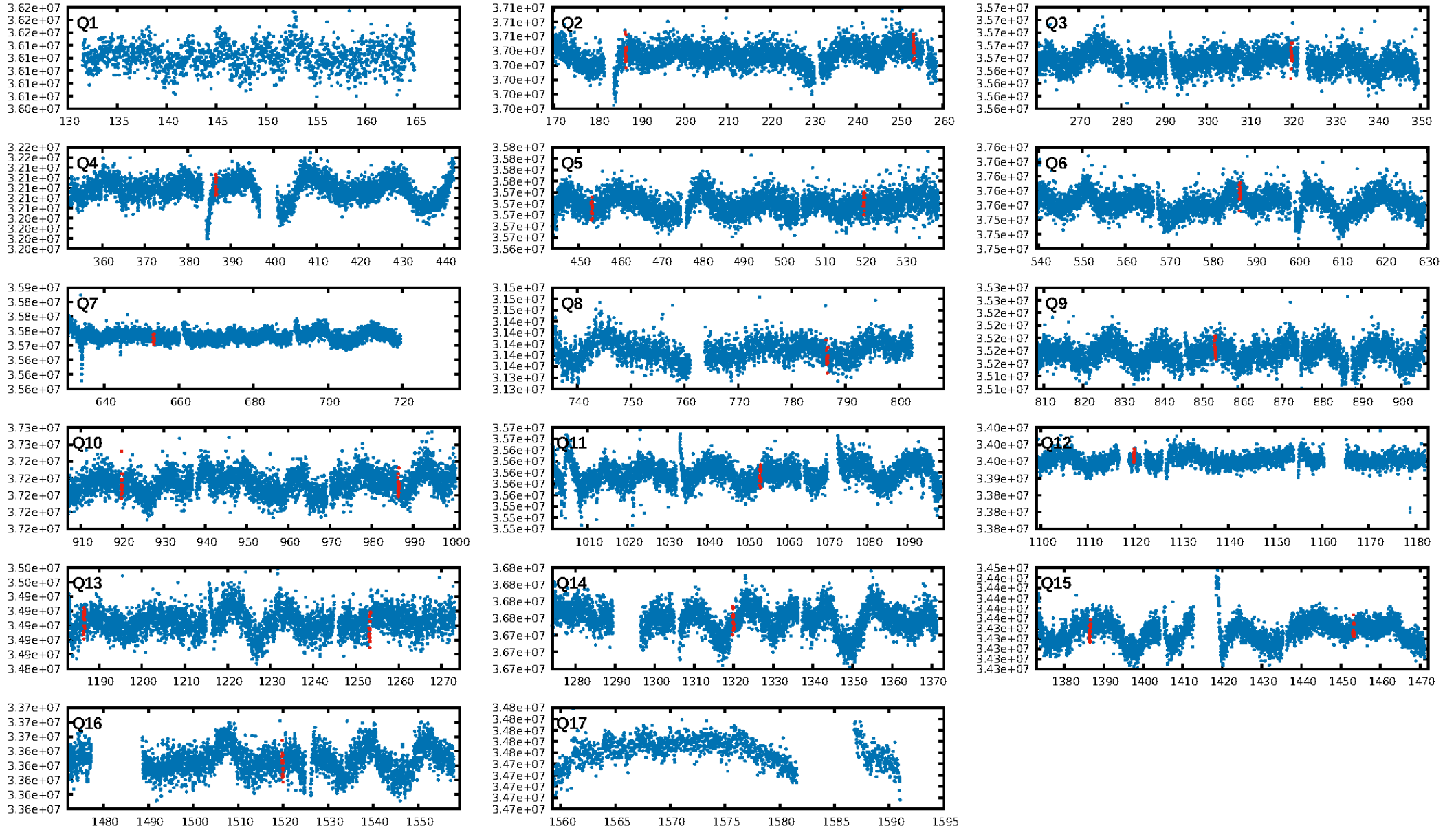
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [252.40 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 31.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.24e-12
RollingBand-fgt: 1.00 [10/10]
GhostDiagnostic-chr: -5.145
Centroid-sig: 1.6%
Centroid-so: 2.533 arcsec [4.86 σ]
OotOffset-rm: 2.979 arcsec [1.13 σ]
KicOffset-rm: 3.124 arcsec [1.71 σ]
OotOffset-st: 0/2/0/0 [2]
KicOffset-st: 0/2/1/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 0.00 [0/15]

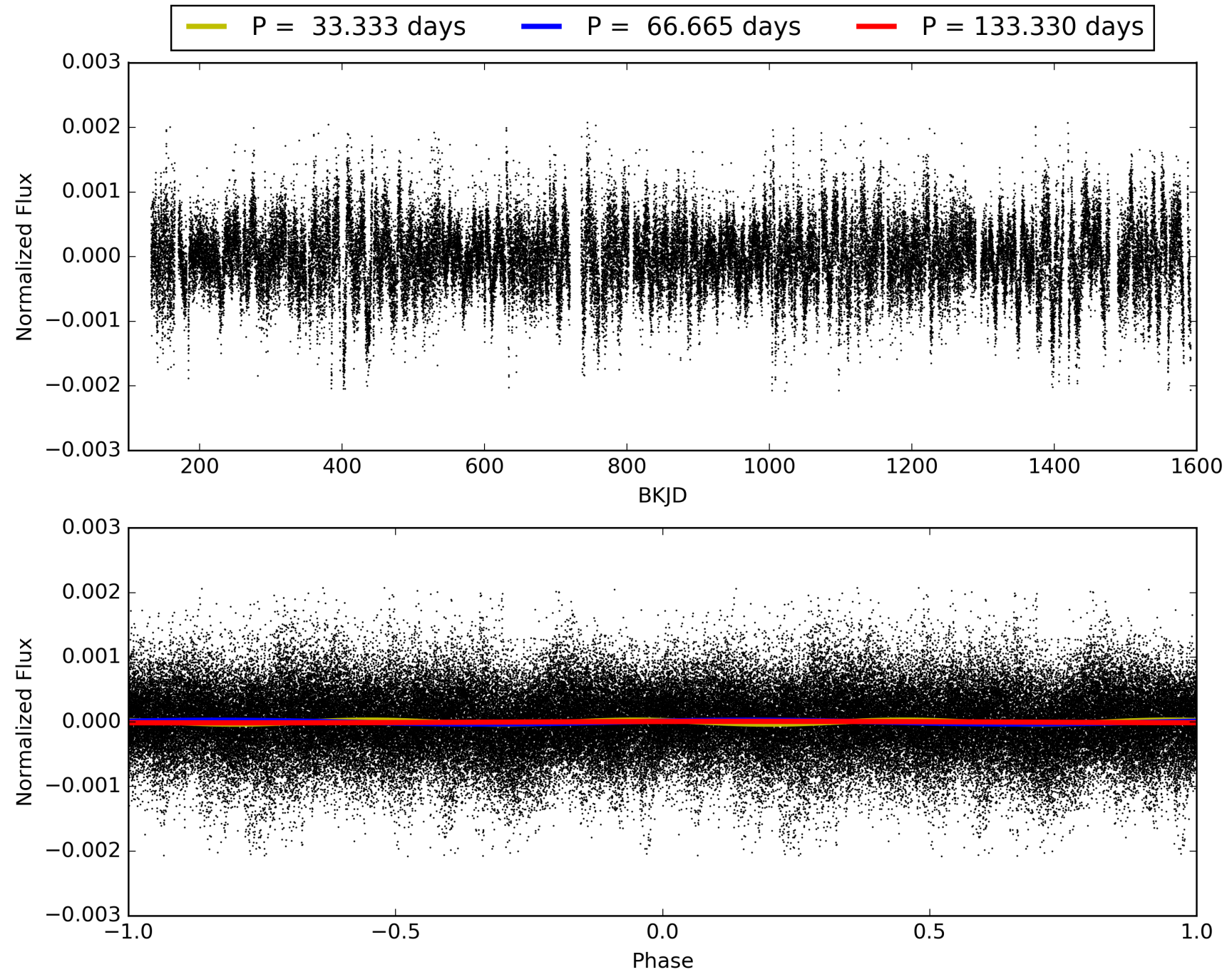
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 05:34:32 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011917366-02, PDC Light Curves

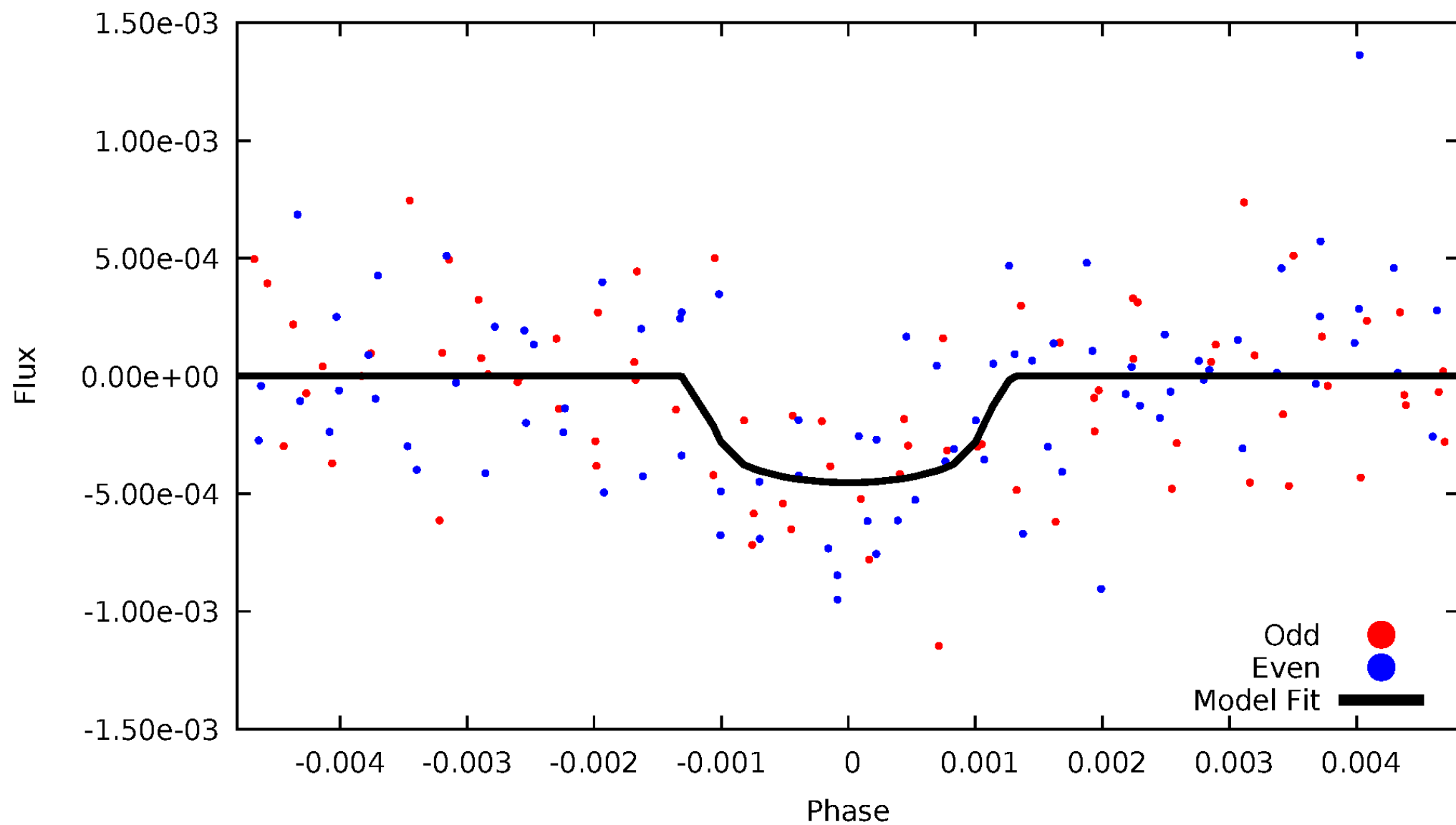


TCE 011917366-02



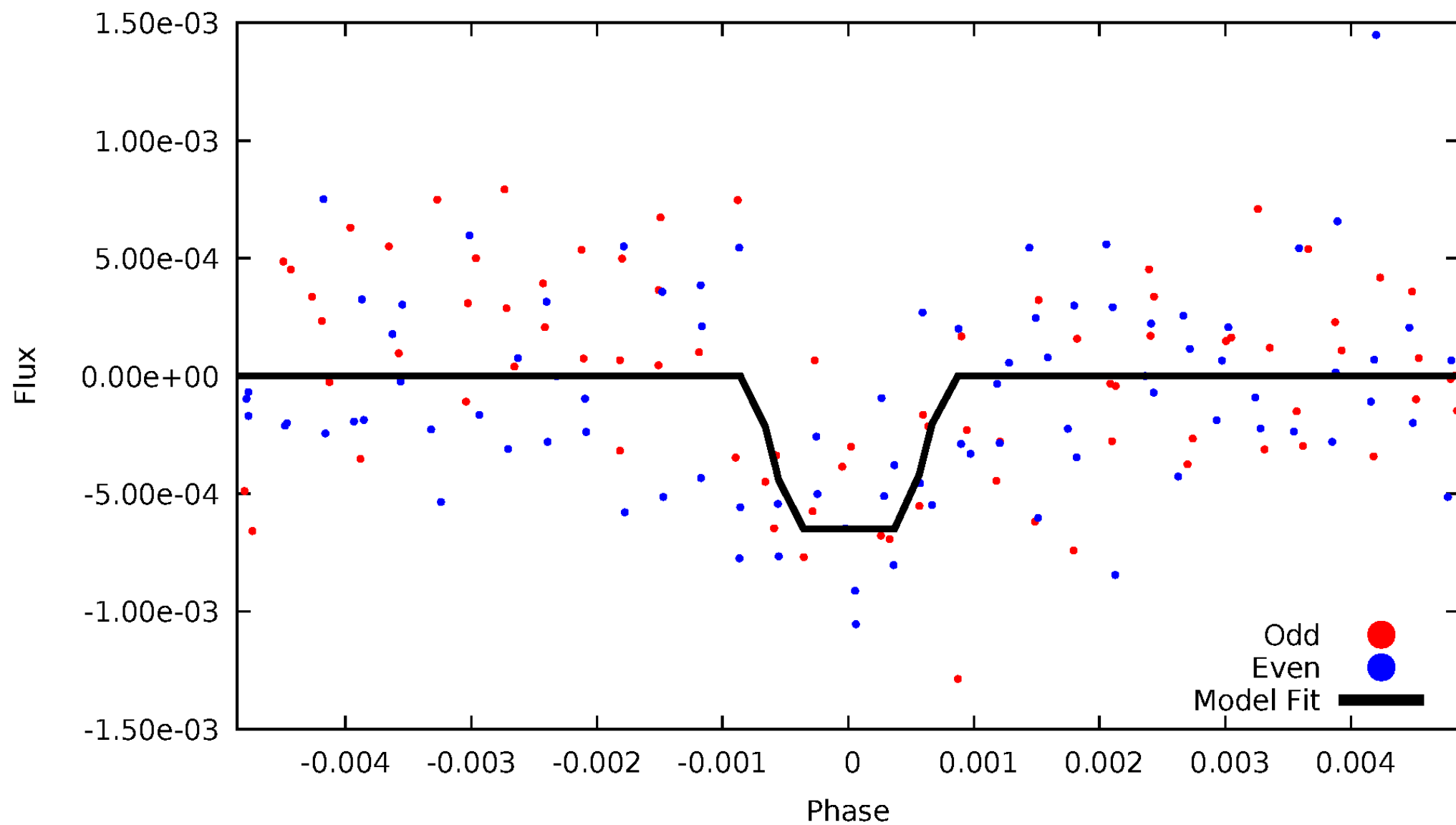
DV Odd/Even

TCE 011917366-02



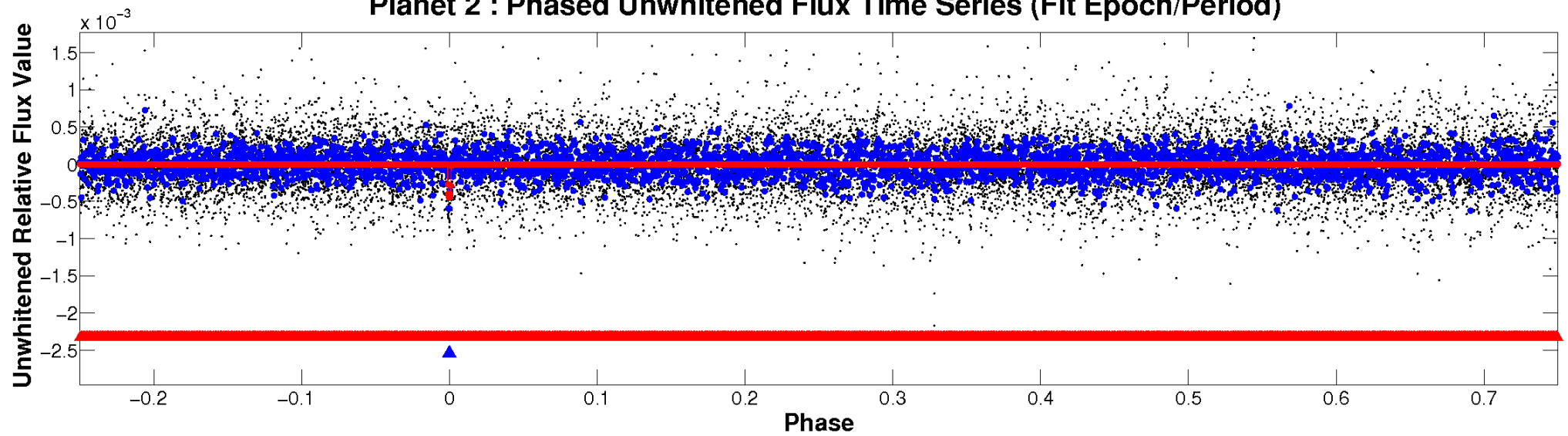
ALT Odd/Even

TCE 011917366-02

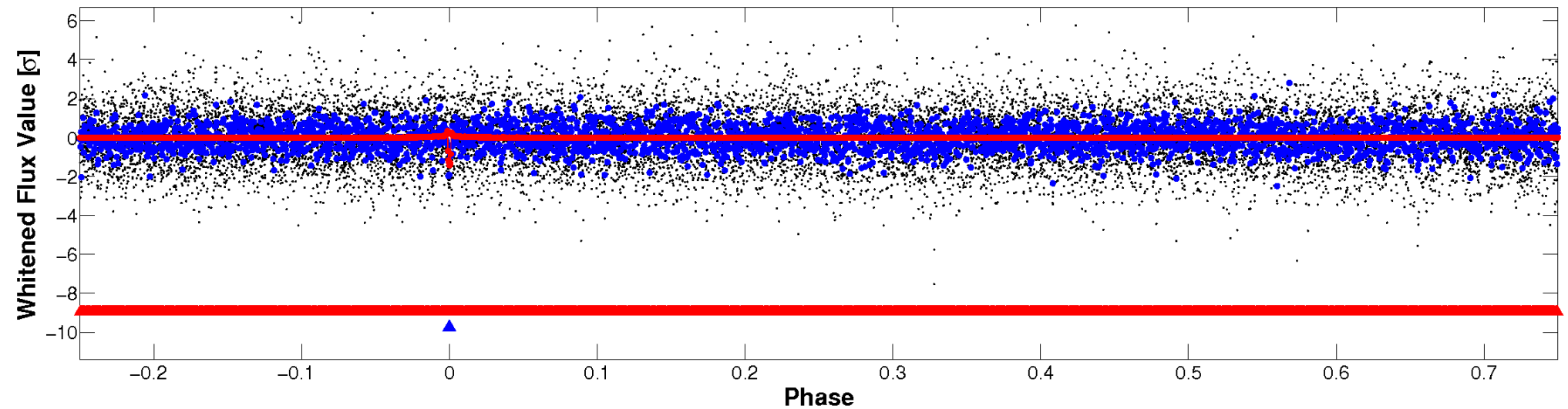


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

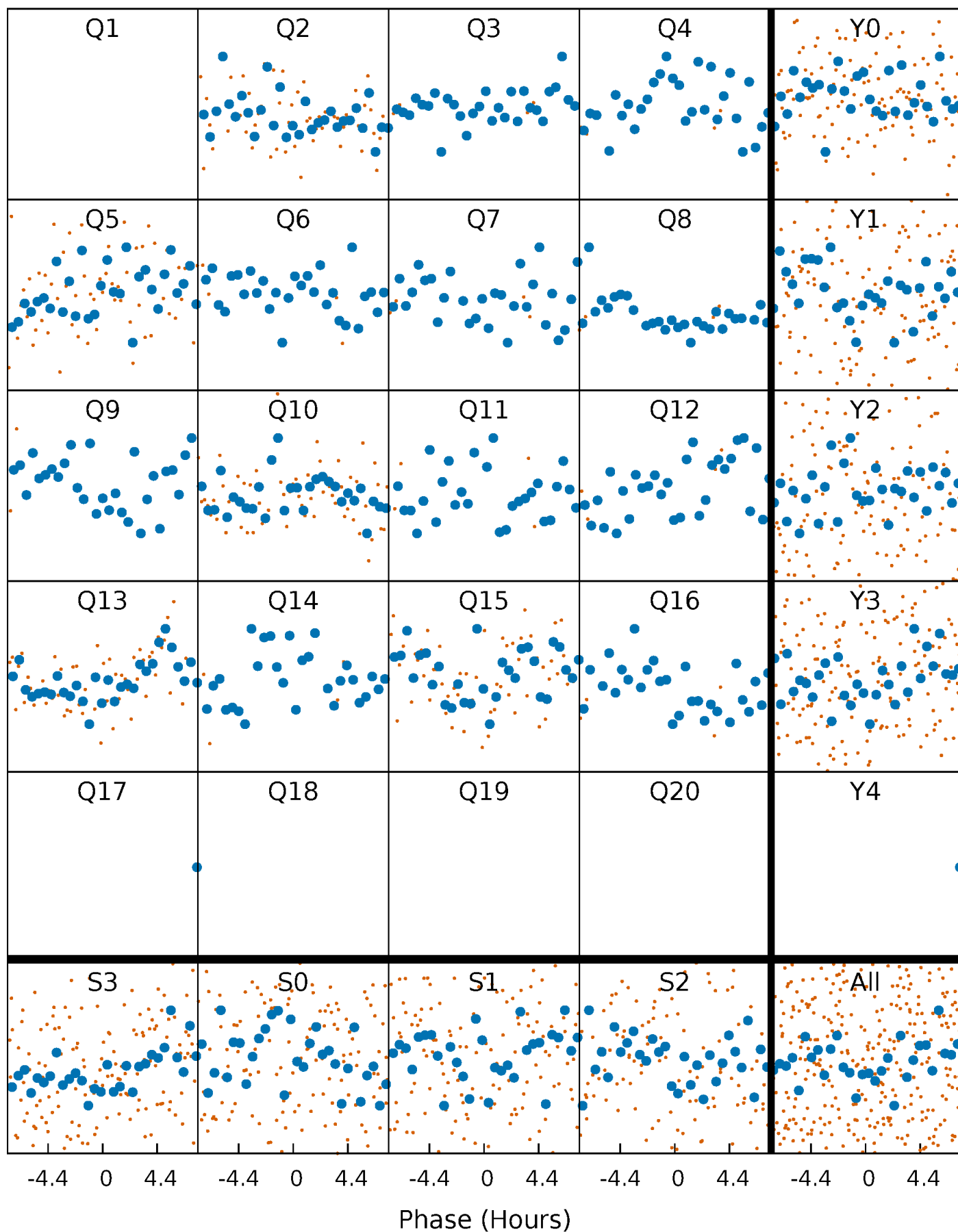


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



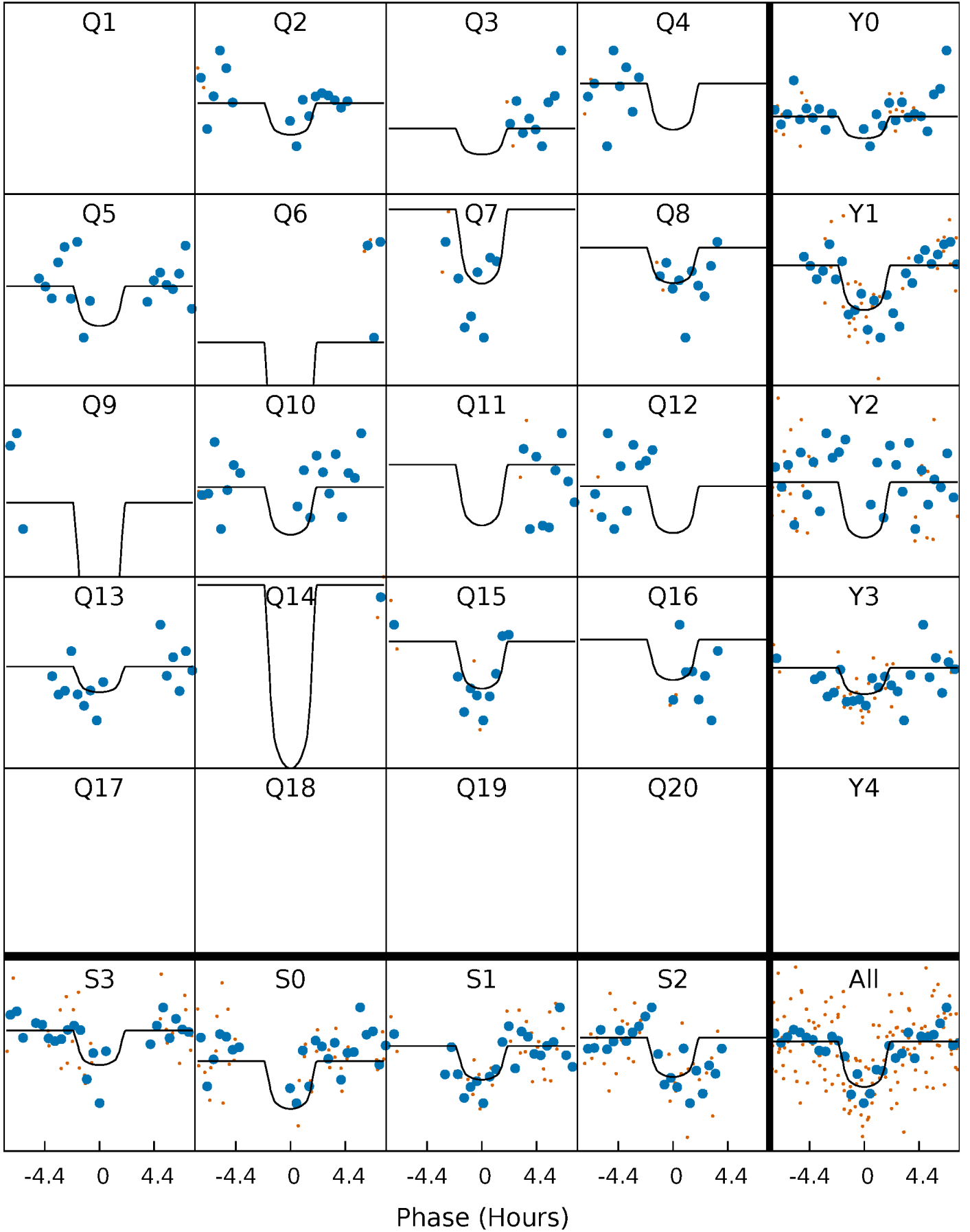
PDC Quarter-Phased Transit Curves

TCE 011917366-02 P= 66.665230 Days $T_0=186.556005$ (BKJD)



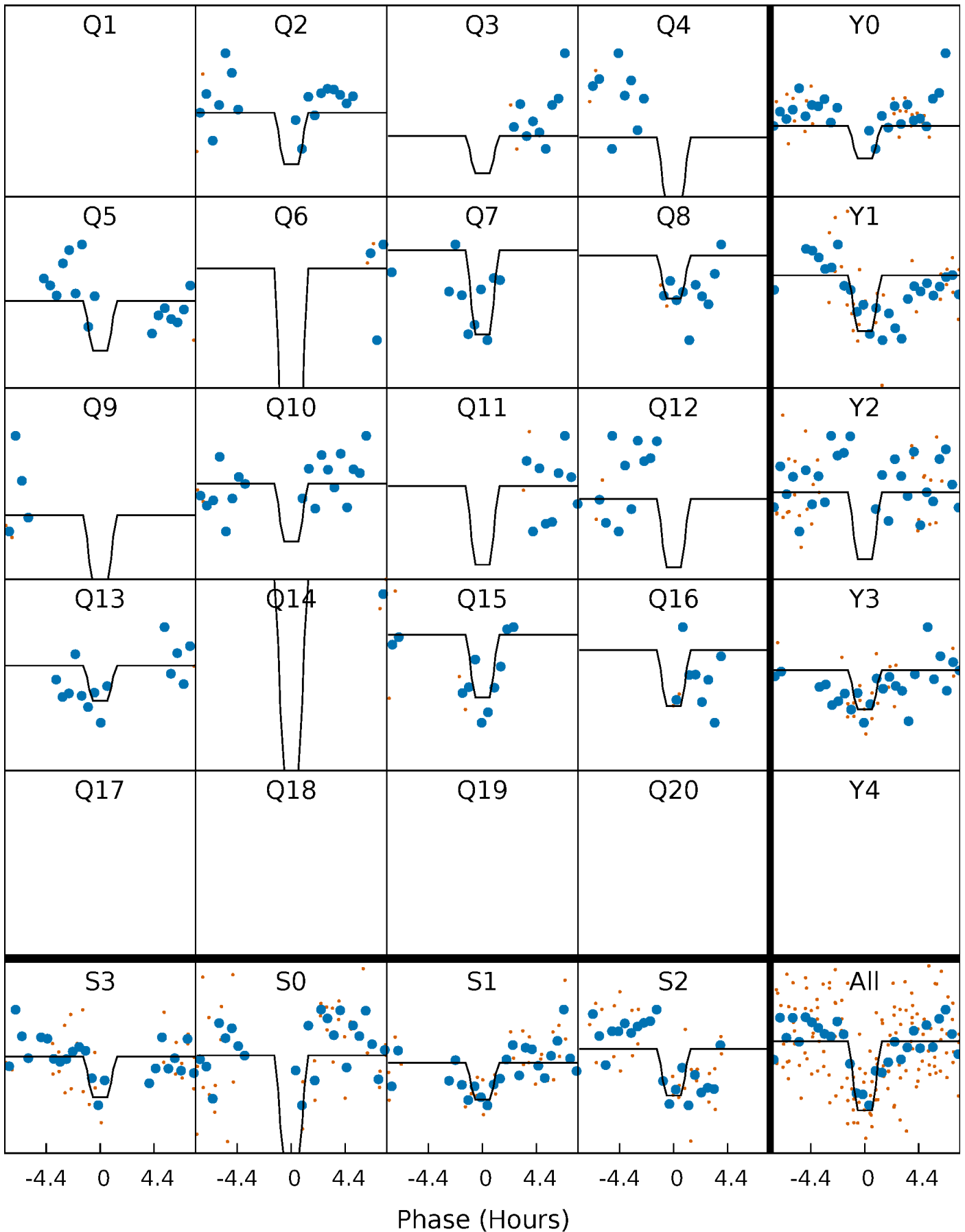
DV Quarter-Phased Transit Curves

TCE 011917366-02 P= 66.665230 Days $T_0=186.556005$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

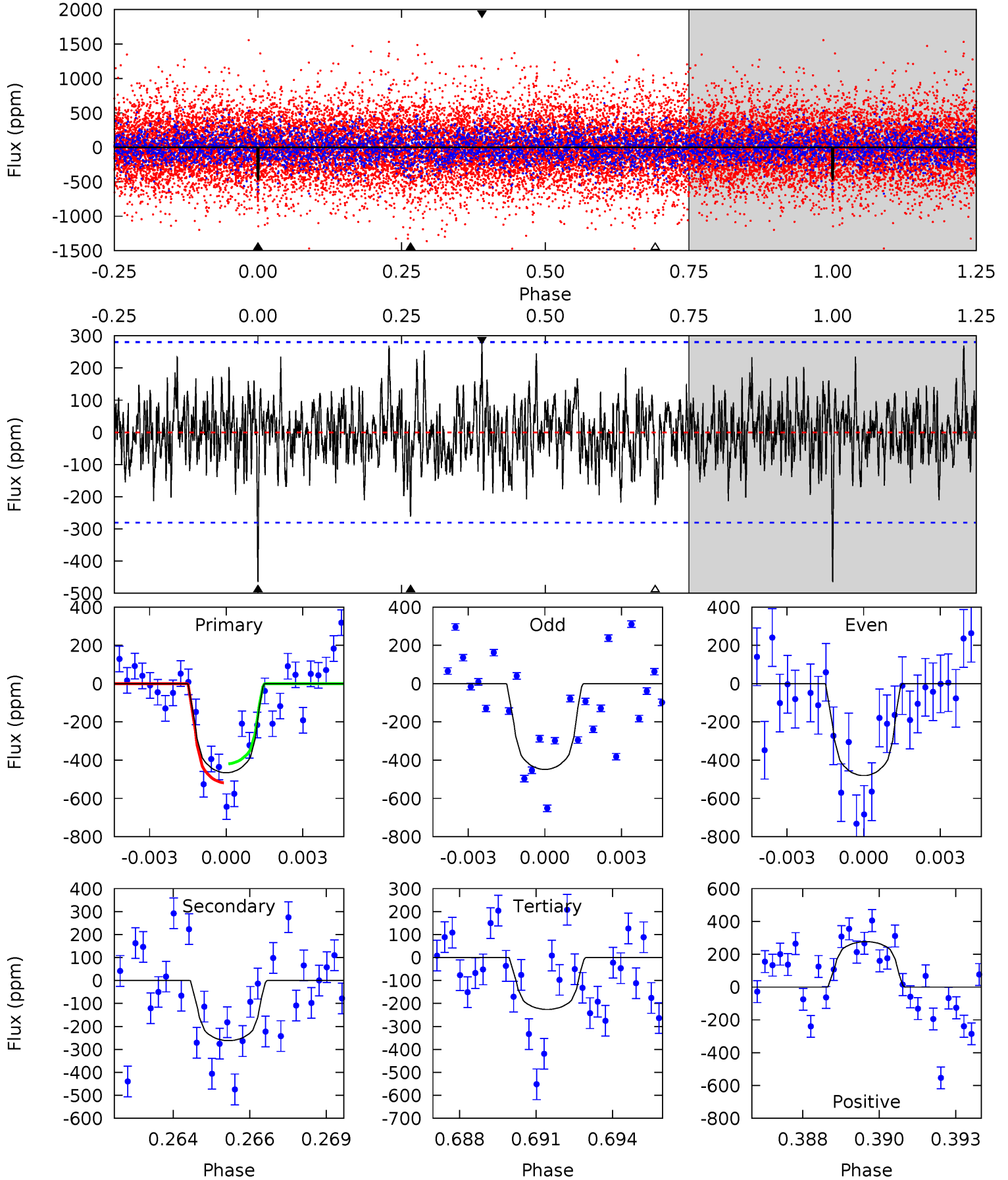
TCE 011917366-02 P= 66.665385 Days $T_0=186.543914$ (BKJD)



DV Model-Shift Uniqueness Test

011917366-02, P = 66.665230 Days, E = 119.890775 Days

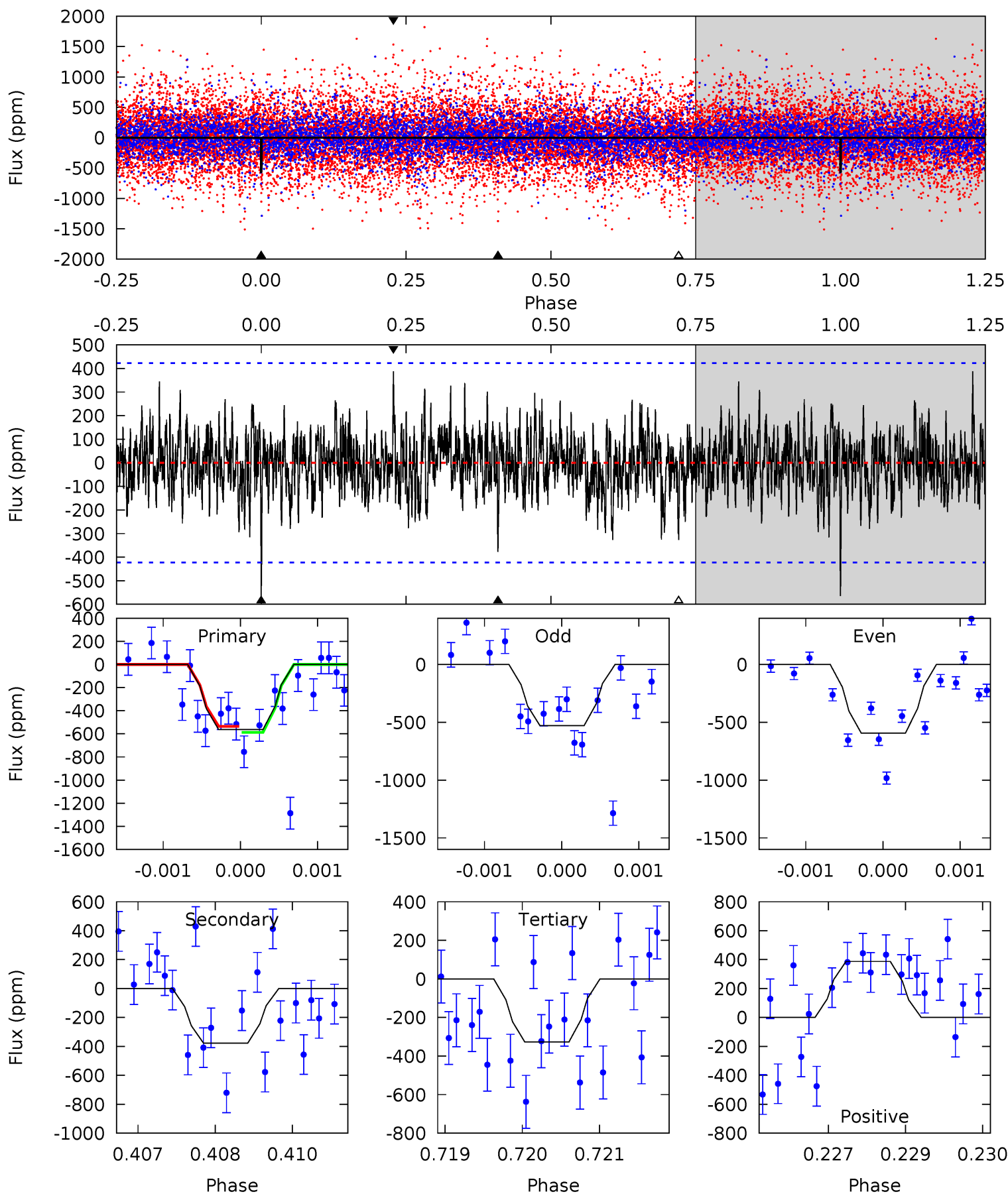
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.76	4.93	4.25	5.20	5.28	3.01	1.45	4.51	3.55	0.68	-0.28	0.30	0.71	0.37	0.93



Alt Model-Shift Uniqueness Test

011917366-02, P = 66.665385 Days, E = 119.878529 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.21	4.83	4.18	4.96	5.41	3.23	1.34	3.04	2.26	0.65	-0.13	0.41	0.85	0.41	0.32



Stellar Parameters For KIC 011917366

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5227^{+155}_{-140}	$4.571^{+0.066}_{-0.060}$	$-0.420^{+0.350}_{-0.300}$	$0.727^{+0.084}_{-0.068}$	$0.719^{+0.091}_{-0.052}$	$2.634^{+0.726}_{-0.570}$
	+3%/-3%	+1%/-1%	+83%/-71%	+12%/-9%	+13%/-7%	+28%/-22%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011917366-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-262 ± 53	$2.15^{+1.64}_{-1.42}$	512^{+19}_{-18}	4258^{+2715}_{-771}	2638^{+21076}_{-1822}
Alt.	-378 ± 78	$2.36^{+1.66}_{-1.43}$	512^{+19}_{-19}	4416^{+2272}_{-799}	3206^{+17845}_{-2159}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

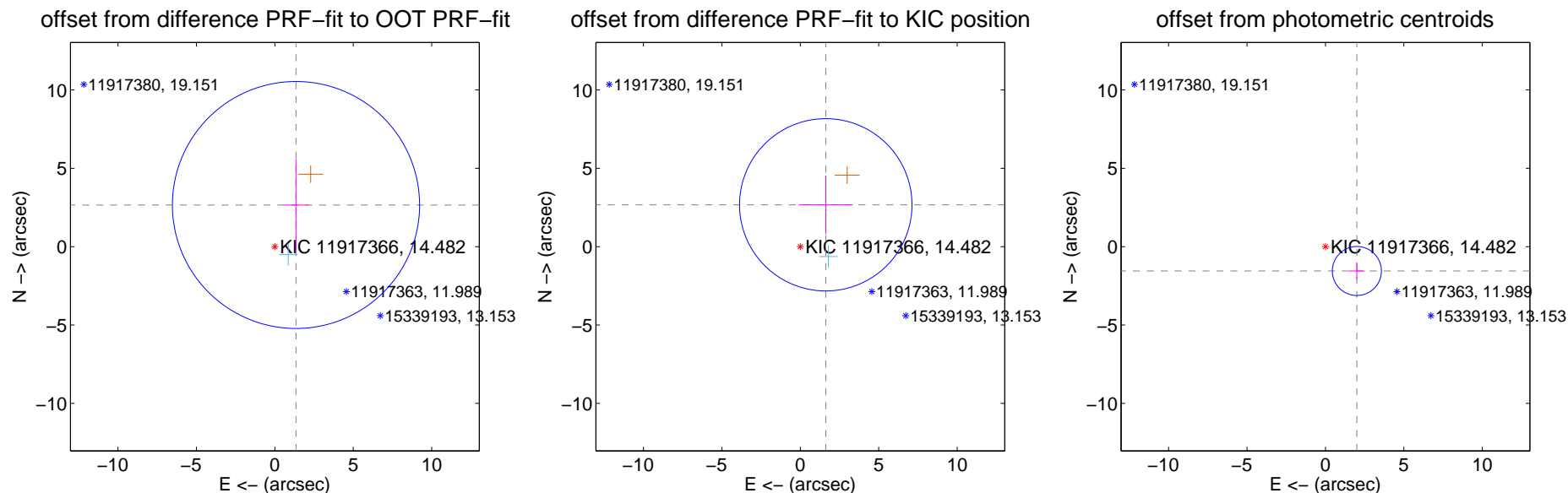
DV Centroid Data

Supplemental centroid analysis for 011917366-02. Kepler magnitude: 14.48. Transit SNR 7.67

There are 1 quarters with good PRF difference image offsets

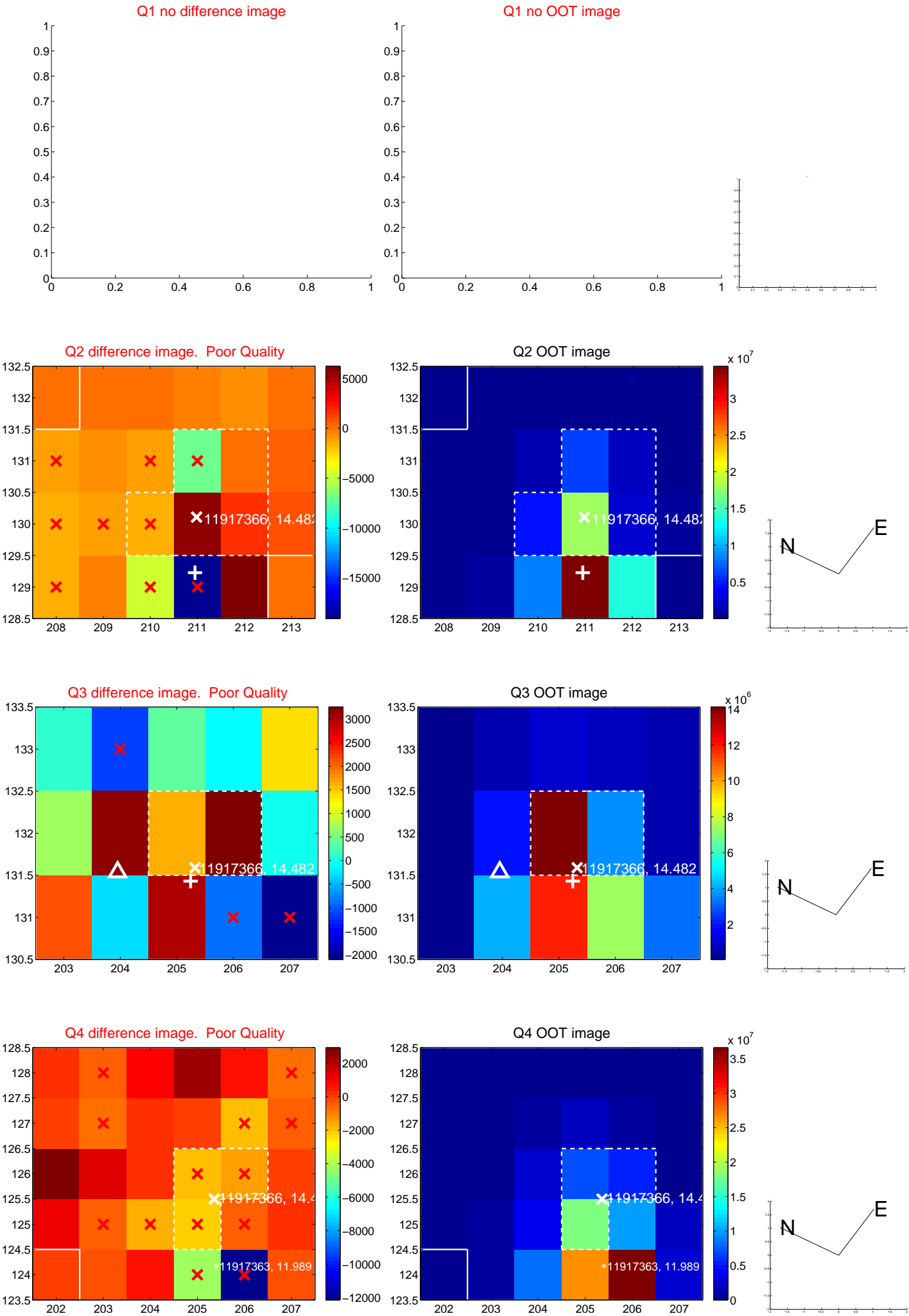
The direct PRF centroid is offset from the target star catalog position by about 0.95 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.979 ± 2.626	1.13	-1.348 ± 0.799	2.657 ± 2.916
PRF-fit source offset from KIC position	3.124 ± 1.832	1.71	-1.623 ± 1.730	2.669 ± 1.868
photometric centroid source offset	2.53 ± 0.52	4.86	-2.00 ± 0.50	-1.55 ± 0.55

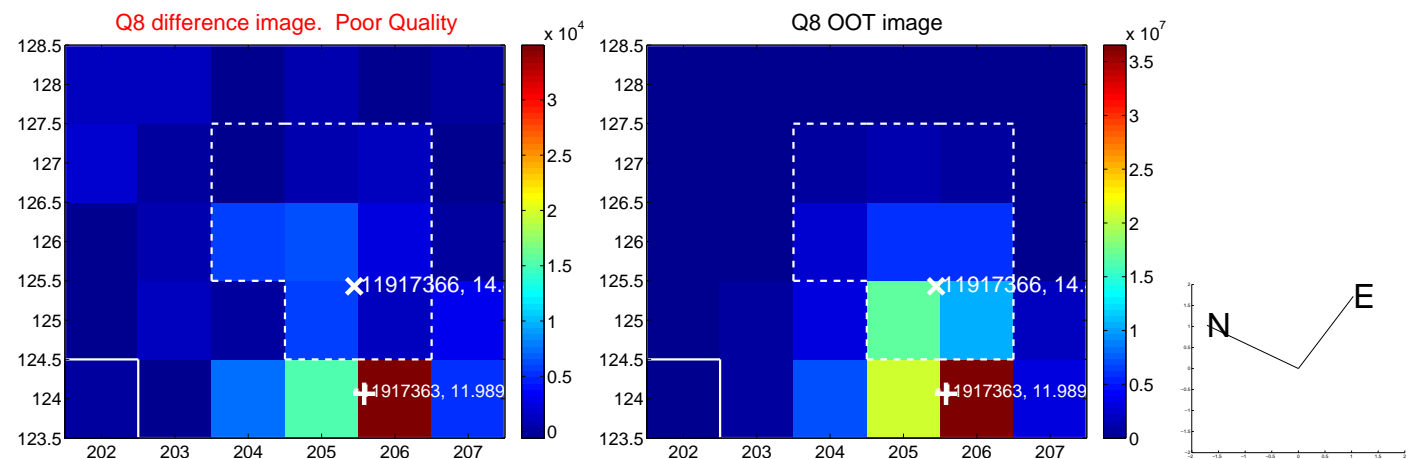
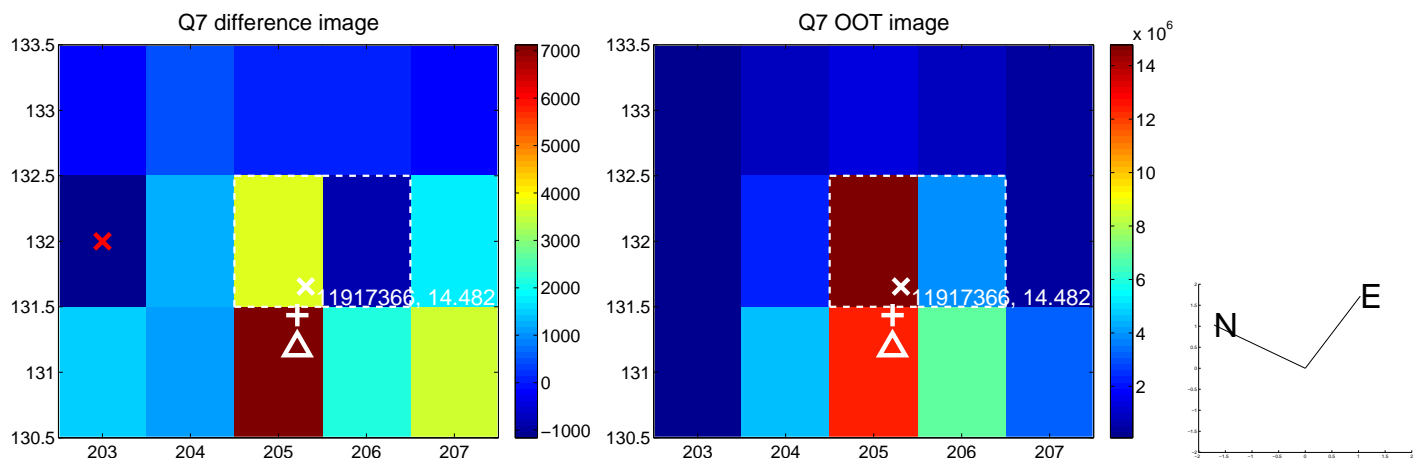
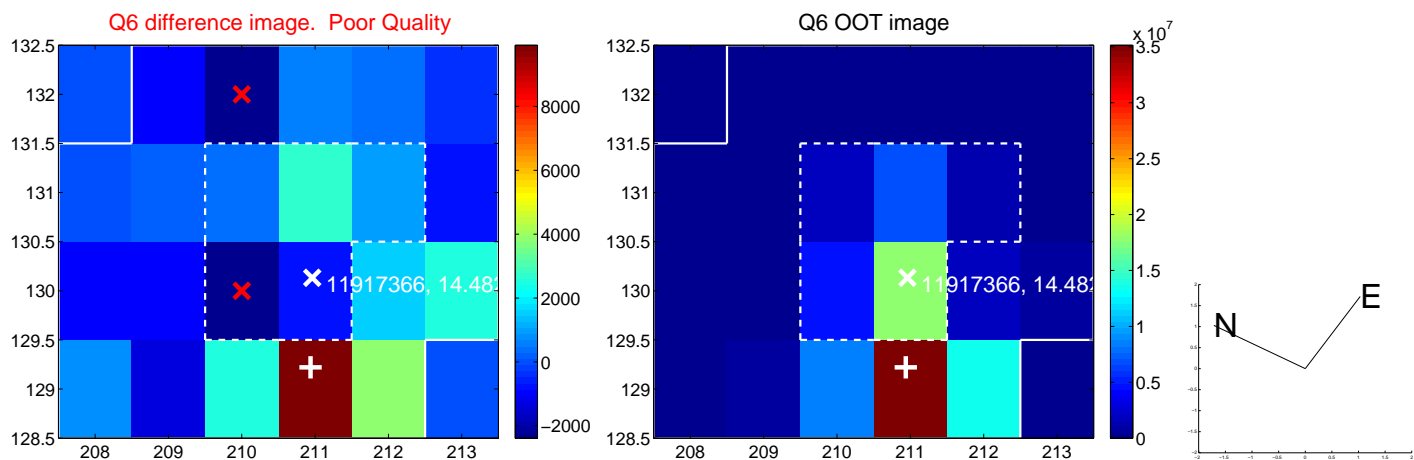
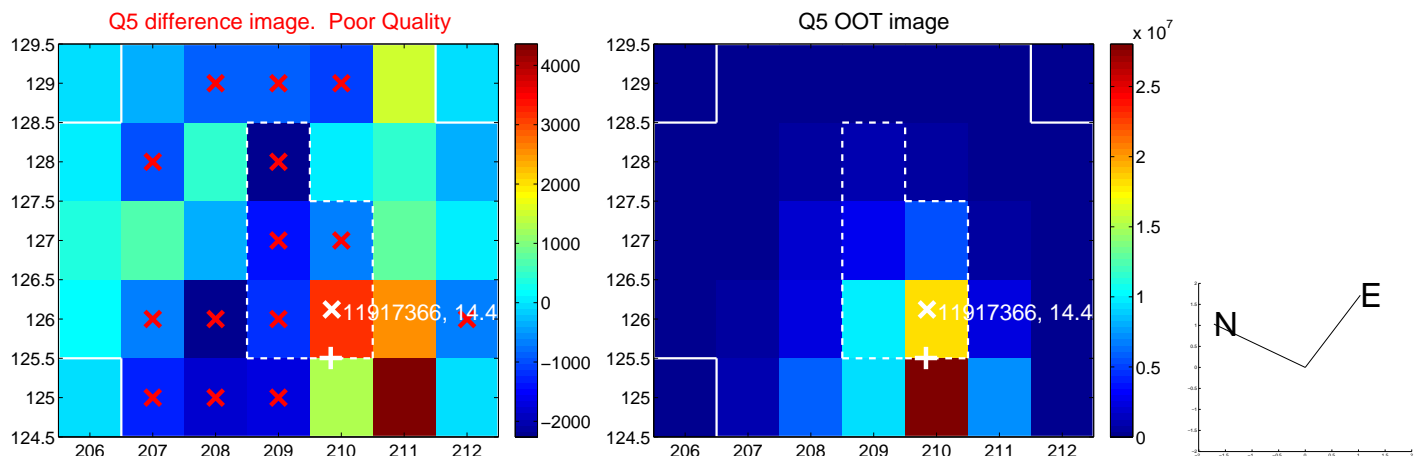


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

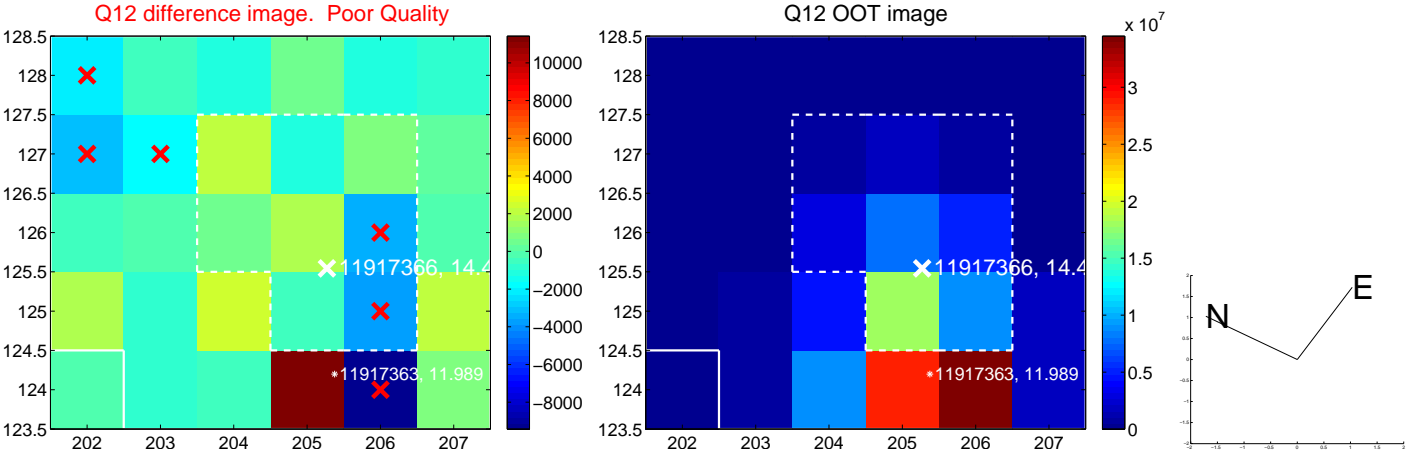
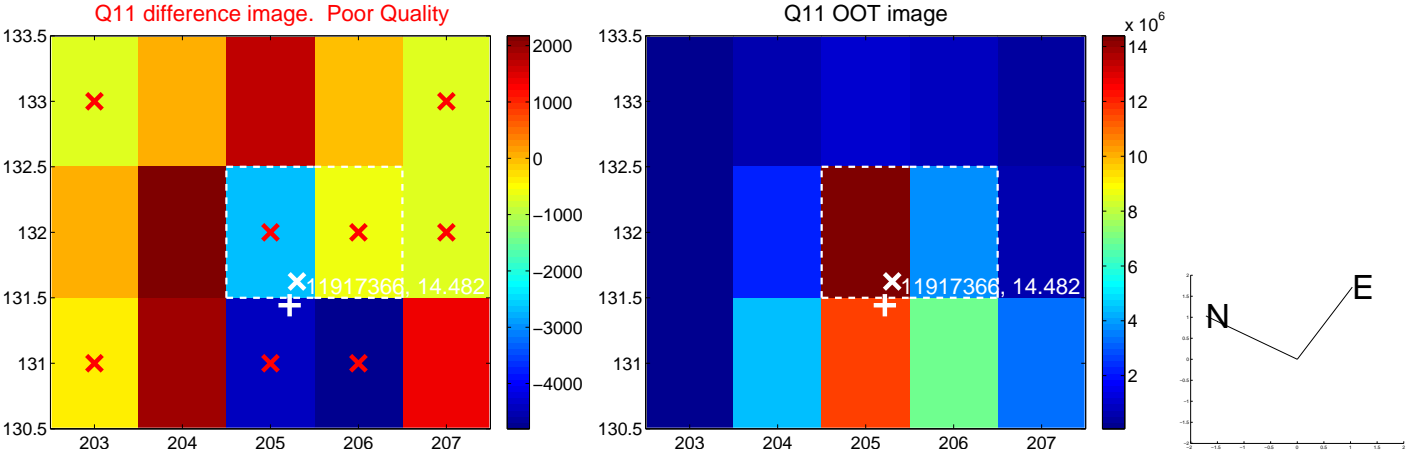
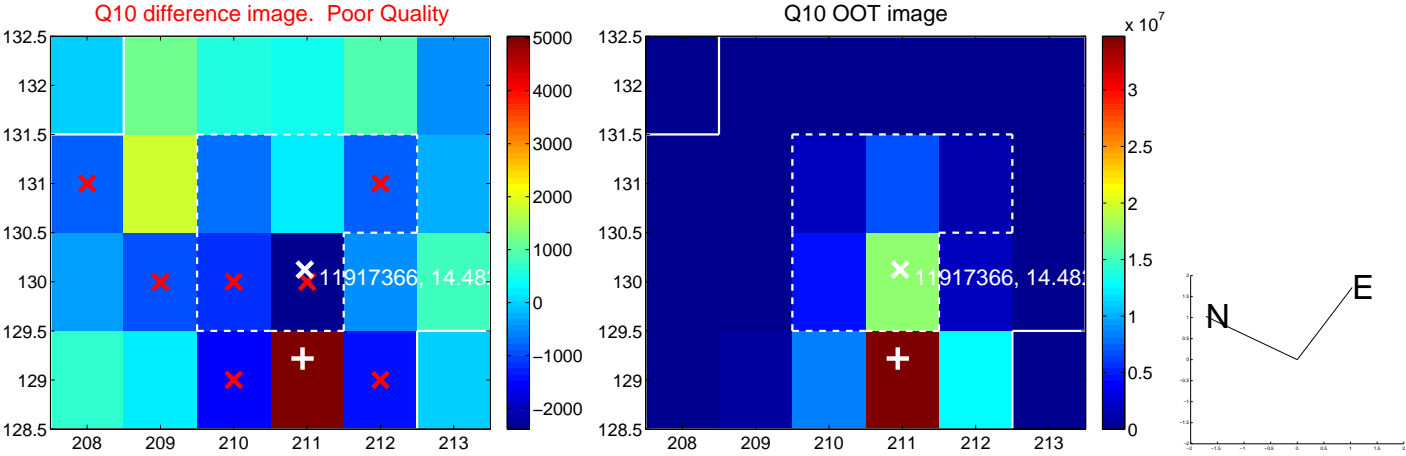
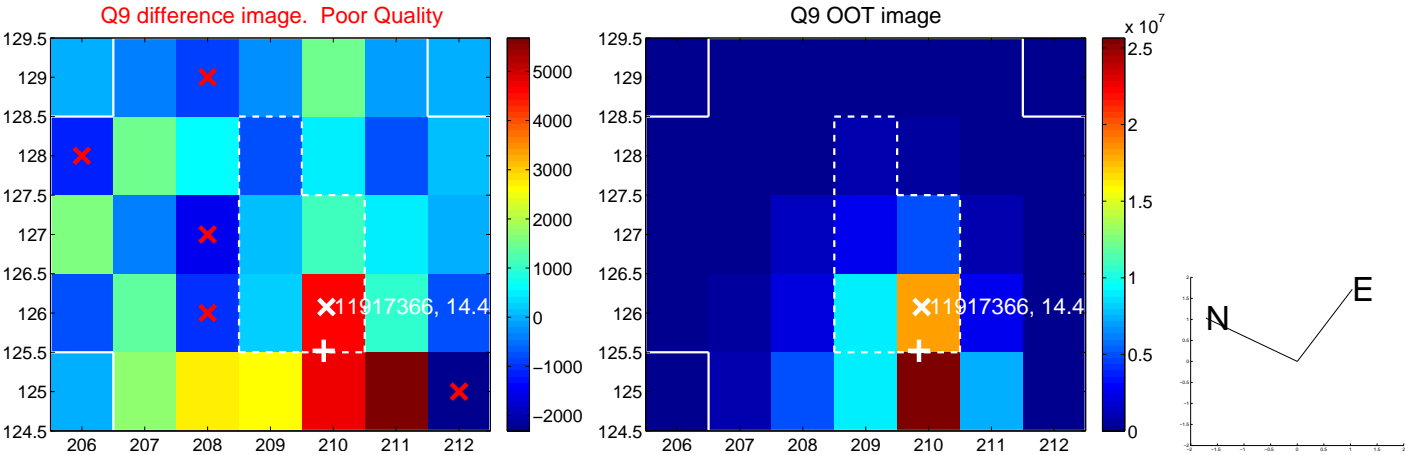
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



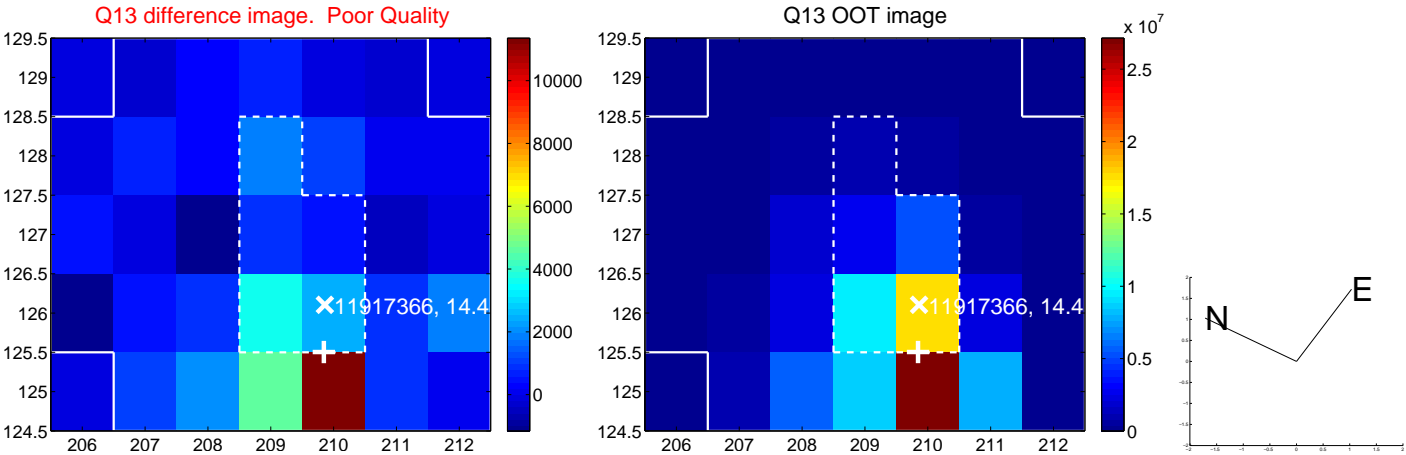
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



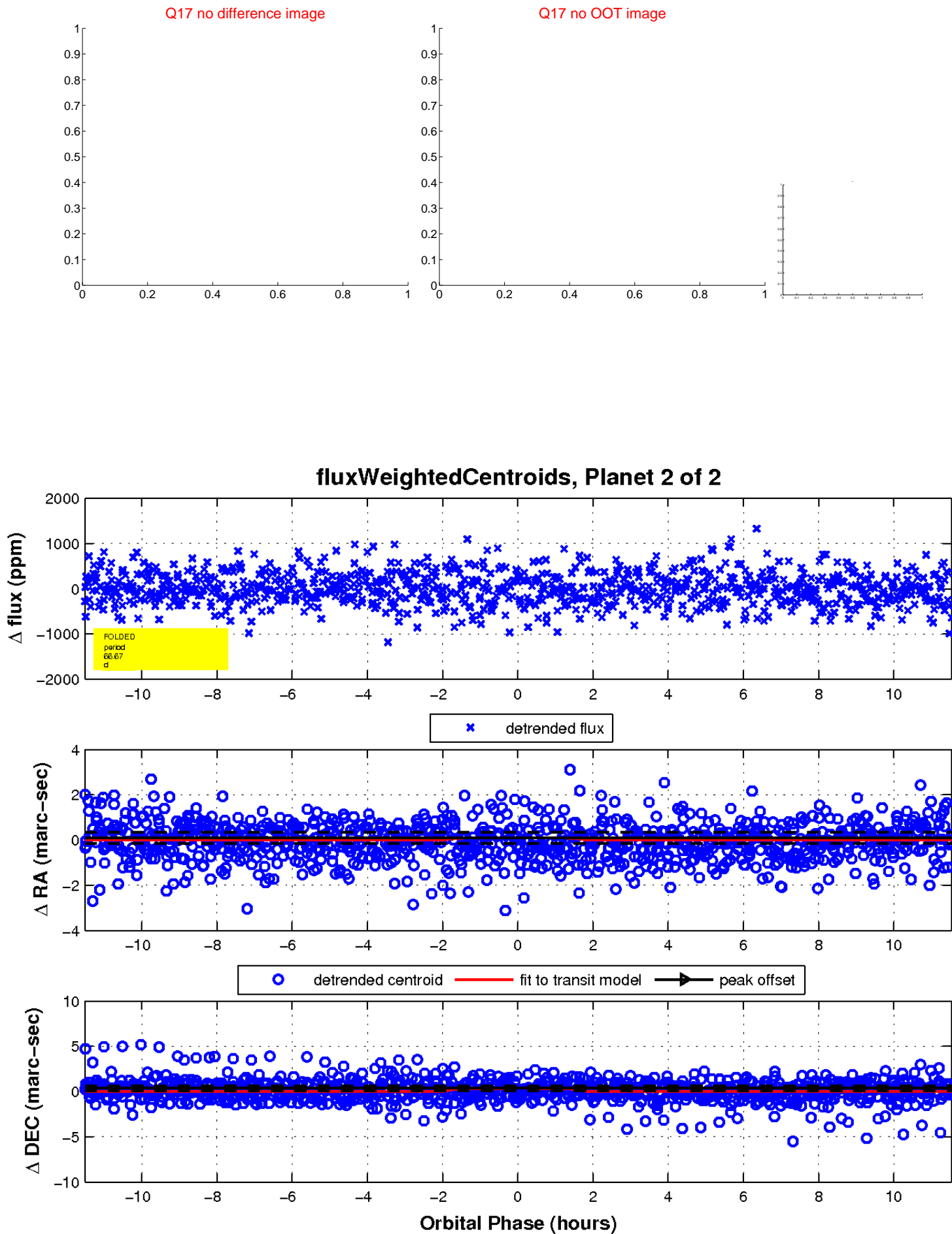
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

